JAMECO® ELECTRONICS

Catalog
Vol. 221
February – April
2002

The Best Part is Your Bottom Line

1-800-831-4242

www.Jameco.com

More of what you are looking for ... at Jameco!

Expanded Surface Mount ICs

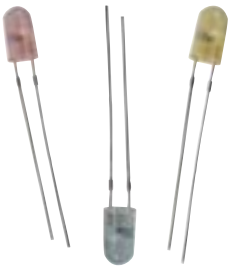
You asked for them and we responded. Almost a hundred of the most requested new surface mount ICs.

See Pages 4-9 for Our Selection!

Company	Part Number	Price
Mous _ _	511-M74HC245	$.80
Digi-K_ _	MM74HC245AWM-ND	$.62
JAMECO	197229	$.60

SAVE Up To 25%

New High-Output LEDs



We have a whole new line of Ultra Bright LEDs in white, blue, orange, yellow and red utilizing water clear and diffused lenses.

See Page 31 for Details!

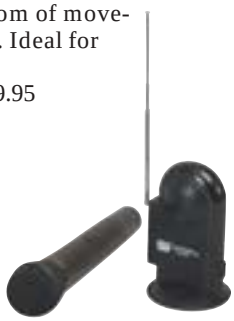
Company	Part Number	Price
Mous _ _	6064308H1	$.58
Digi-K_ _	P408-ND	$.96
JAMECO	197616	$.39

SAVE Up To 60%

New Pro-VHF Wireless Microphones

The perfect budget solution when freedom of movement and crystal clear audio is required. Ideal for leading seminars, schools, religious services and videos – starting at just $59.95

- Microphone Type: handheld
- Max. Deviation Range: ±25kHz, with limiting compressor
- Transmission Range: 100 ft.
- Carrier Frequency Range: 230-260MHz
- Frequency Response: 40Hz to 20kHz
- S/N Ratio: better than 80dB



See Page 89 for Details!

Part No.	Product No.	Description	Wt. (lbs.)	1	5
198230	WA500	Microphone with receiver	1.1	$59.95	$54.95

Easily Find That Battery!

Our expanded line of hard-to-find batteries include long lasting lithium, alkaline, zinc chloride, silver oxide and rechargeable Ni-Cad, Ni-MN, Li-ION and lead acid batteries. For power hungry portable devices including digital cameras.

See Page 58 for Details!

Company	Part Number	Price
Best B_ _	522FP-4	$9.48/4 pk.
Batteries.C_ _	186916	$11.29/4 pk.
JAMECO	198731	$8.89/4 pk.

SAVE Up To 22%

Fuses – Huge Price Decreases

We have a great new supplier who is lowering our costs so we can pass on the HUGE savings to you!

- GMA, AGC & MDL/3AG fuses
- Fast & slow-blow types

See Page 59 for Details!

Company	Part Number	Price
Mous _ _	504-GMA-1	$.21/100 pcs.
Digi-K_ _	283-2015-ND	$.198/100 pcs.
JAMECO	103907	$.13/100 pcs.

SAVE Up To 35%

Laptop Not Holding Its Charge?

Our new line of replacement laptop batteries for popular computers like Toshiba, IBM and Compaq start at only $108.95.

ThinkPad 770/770D/770E/ 770ED Series (Li-ION)

See Page 59 for Details!

Company	Part Number	Price
Zones.C_ _	00045975	$268.99
Radio Sh_ _ _	23-2905	$259.99
JAMECO	197739	$248.95

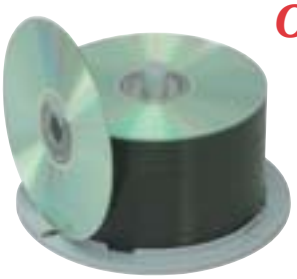
SAVE Up To $20

We Take Our Low Price Guarantee Seriously!

Jameco has made every effort to provide current and accurate comparisons for your review. Competitive pricing data was collected at the latest possible date (12/17/01) from our competitor's websites. Print screens are available upon request.

Incredible Bargains!

50 CD-R Disc Pack



Only $14.99

COMPARE & SAVE

Limit 20 Packs!

An incredible deal! These top-of-the-line 80-minute MultiSpeed 24X CD-R discs offer a huge 700MB of storage. Each is packed in a handy 50-pak spindle.

Part No.	Description	Wt. (lbs.)	Price
198774	50-pack 12X CD-R (74min 700MB)	2.0	$14.99

Internal CD-Writer
16X Write / 10X Rewrite / 40X Read

Only $109.99

COMPARE & SAVE

Floppies and ZIP disks don't have enough space for large audio and video files. Now create music or photo album CDs and back-up with this internal CD-writer that writes up to 650MB on a single CD! Carry all your data with you and use it anywhere.

Part No.	Description	Wt. (lbs.)	1	5
198782	CD-Writer	1.3	$109.99	$104.99

Digital Stopwatch/Up-Down Timer/Alarm/Calendar

This digital stopwatch does it all!

Countdown timer ranges from one minute to 9 hours and 59 minutes. Clock function features programmable alarm with hourly chime. Built-in memory recalls up to 10 laps. Calendar displays month, day and day of week, all in large display and sealed in a water resistant housing.

Only $28.95

Part No.	Description	Wt. (lbs.)	1	10	25
198029	Stopwatch/Timer	1.3	$28.95	$25.95	$24.49

See detailed Product Index on pages 181-184

Integrated Circuits 4-14
Electronic Components 15-27
Optoelectronic Components 28-34
Electromechanical Components 35-46
Interconnect Components & Hardware 47-53
Power Components 54-73
Motors & Motion Control 74-77
Fans 78-80
Wiring Devices 81-89
Electronic Design 90-93
Tools & Soldering Equipment 94-107
Test & Data Acquisition Equipment 108-130
Computer Cases, Drives & Cards 131-150
Computer Peripherals & Cables 151-164
Security Products 165-168
Educational Kits 169-180
Order Form, Order Info & Detailed Product Index 181-187

PRICES

Prices are effective as of 1-14-02 and expire 4-21-02.
Prices & discounts are subject to change without notice.

- 99% In-Stock
- Low price Guarantee
- Hard to Find Items
- 24/7 Service

Contact Information

Order Desk - 24/7, 365 Days a Year

Phone: 1-800-831-4242
Fax: 1-800-237-6948
sales@jameco.com

Website

www.jameco.com

International Order Desk

Phone: 1-650-592-8097
Fax: 1-650-592-2503
international@jameco.com

International Toll-Free Fax Numbers

- **Columbia:** 980-9-136784
- **Mexico:** 001-800-593-1449
- **Indonesia:** 1-803-015-237-6948
- **Brazil:** 000-817-455-6119
- **New Zealand:** 080-044-0470

Technical Support

Phone: 1-800-831-4242
tech@jameco.com

Customer Service

Phone: 1-800-831-4242
custservice@jameco.com

Credit Department

Phone: 1-650-592-8097
credit@jameco.com

Jameco Electronics is a trademark of James Electronics, LTD, its parent company. Other product names and logos are used for identification purposes only and are trademarks of their respective companies. ©2002 Jameco Electronics. All rights reserved.

The Jameco Advantage...

Low-Price Commitment
We'll match the advertised price of any like product. It's that simple.

Same Day Shipping
99% of orders placed by 6 PM EST are shipped the same day.

Around-the-Clock Ordering
You can call us at 1 (800) 831-4242 24x7x365 to place your order. Or visit us on the web at http://www.Jameco.com.

Jameco searches the globe to identify the best sources of high-quality electronic products at the lowest prices possible. Therefore, you get the products you need at substantial savings backed by our lowest-price guarantee.

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

New Product Ideas...

Our new product team is constantly looking for new ways to improve our product line. This edition of the catalog features over 300 new products, and the team is already working on new products for the next edition. If you'd like us to add a particular part or product line, be sure to e-mail your recommendation to products@jameco.com.

Jameco's Silicon Valley Headquarters

Huge Savings on Over 900 Products!...

Our bullish purchasing sometimes creates an overstock situation. This results in great savings for you of up to 60% on many product types including semiconductors, power supplies, fans, tools and computer products. Easily spot these great deals by the yellow highlight. OEM quantity prices are offered at even greater savings.

An Easier-To-Use-Catalog...

Jameco has set a goal of making our catalog easier for you to use. The multi-colored product legend ensures that you can spot unique items much easier than ever before. To accomplish this, our part numbers are now displayed in four distinctive colors.

The Color Code Legend...

For easy reference we have included this color code legend on each and every page.

Part Number Color Code
New Sale Refurbished Closeout

New Products

Part numbers in red identify over 300 new items added to this catalog.

NEW

Part No.	Product No.
182991	RMH08LP

Refurbished/Out-of-Production Products

Part No.	Product No.
25101	MC146818

A green part number identifies refurbished products. Once products are phased out of production, most distributors stop stocking them. Jameco supports your needs by buying refurbished / out-of-production products and delivering them to you at terrific prices.

Closeout Specials

Part No.	Product No.
155643	DC603F1

A blue part number indicates products that are being phased out due to lack of supply. This gives you an opportunity for one last buy at a reduced price.

Sale Products

A yellow highlighted priceline identifies sale items. Sale items can also be spotted by the starbursts throughout the catalog. Most of these items provide 20% to 60% saving opportunities on OEM quantity buys.

SALE

Part No.	Product No.	Pins	Description	1	10
44222	7400	14	Quad 2-input NAND gate	$.49	$.39
63538	7402	14	Quad 2-input NOR gate	.19	.14
44231	7404	14	Hex inverter (CD4069)	.39	.35

Over 300 New Products

We're constantly expanding our broad product line of new and out-of-production items. Be sure to check out these great new offerings now!

Surface Mount Devices

We have added even more capacitors on page 20 and linear ICs on pages 8 & 9.

Surface Mount items can be quickly spotted with the distinctive red diamond.

Hard Drives and Accessories

Never run out of storage room again! See page 138 for our complete section of new drives, including our new CD-R.

Sensors and Data Acquisition

See pages 123-127 for our expanded line of data acquisition modules, cards, software and accessories. For accompanying sensors see page 41.

Power Supplies

Jameco's got more power! See pages 62 through 70 for a selection of new power supplies.

Batteries

Batteries not holding their charge? Check out our selection of rechargeable and alkaline batteries starting on page 58. Especially stop by page 59 for our newest selection of laptop batteries.

Trademarks are property of their respective owners

The Jameco No-Hassles 30-Day Money-Back Guarantee

If for some reason you're not entirely satisfied with your purchase, just let us know. We'll give you an RMA number to help you track your return and help you find the right product. See page 185 for details.

Surface Mount

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 500 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

7400 series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
48979	7400**	14	Quad 2-input NAND gate	$.59	$.49	$.45
49007	7401	14	Quad 2-input NAND gate (O.C.)	.49	.45	.39
49015	7402*	14	Quad 2-input NOR gate	.59	.49	.45
49040	7404**	14	Hex inverter	.59	.49	.45
49074	7405*	14	Hex inverter (O.C.)	.29	.25	.22
49091	7406**	14	Hex inverter buffer/driver (O.C.)	.45	.34	.28
49120	7407**	14	Hex buffer/driver (O.C.)	.59	.49	.45
49146	7408*	14	Quad 2-input AND gate	.59	.49	.45
49189	7410*	14	Triple 3-input NAND gate	.25	.19	.15
49269	7411	14	Triple 3-input AND gate	3.95	3.59	3.25
49402	7413	14	Dual 4-input NAND gate Schmitt trigger	.89	.79	.72
49437	7414*	14	Hex inverter Schmitt trigger	.59	.49	.45
49630	7416*	14	Hex inverter buffer/driver (O.C.)	.69	.62	.55
49728	7417*	14	Hex buffer/driver (O.C. hi-voltage)	.79	.69	.59
50008	7420*	14	Dual 4-input NAND gate	.49	.45	.39
50024	7421	14	Dual 4-input AND gate	2.95	2.75	2.49
50083	7425	14	Dual 4-input NOR gate with strobe	.89	.69	.55
50139	7427	14	Triple 3-input NOR gate	.49	.39	.32
50198	7428	14	Quad 2-input NOR buffer	.89	.80	.72
50227	7430*	14	8-input NAND gate	.29	.26	.23
50235	7432*	14	Quad 2-input OR gate	.59	.49	.45
50315	7438*	14	Quad 2-input NAND buffer (O.C.)	.45	.34	.28
50358	7440	14	Dual 4-input NAND buffer	.59	.55	.48
50374	7442	16	BCD-to-decimal decoder	.89	.79	.69
50403	7445	16	BCD-to-decimal decoder/driver (30V)	.89	.79	.69
50411	7446	16	BCD-to-7 segment decoder/driver (30V)	1.29	1.19	1.09
50420	7447*	16	BCD-to-7 segment decoder/driver (15V)	1.09	.99	.89
50518	7470*	14	Edge-triggered JK flip-flop	.89	.79	.72
50526	7472	14	AND gated JK master/slave flip-flop	.49	.45	.35
50534	7473	14	Dual JK flip-flop with clear	.99	.89	.79
50551	7474**	14	Dual D flip-flop	.45	.39	.29
50577	7475	16	4-bit bi-stable latch	2.95	2.75	2.49
50593	7476	16	Dual JK flip-flop with preset and clear	1.19	1.09	.99
50631	7483	16	4-bit binary full adder	.89	.79	.69
50657	7485*	16	4-bit magnitude comp.	.39	.29	.22
50665	7486	14	Quad EXCLUSIVE-OR gate	.79	.69	.59
50681	7489	16	64-bit RAM P 50ns	2.95	2.75	2.49
50690	7490	14	Decade counter	.89	.79	.69
50737	7492	14	Divide-by-12 counter	1.49	1.35	1.19
50745	7493	14	4-bit binary counter	1.29	1.19	1.09
50770	7495*	14	4-bit parallel-access shift register (K155N)	.69	.59	.39
50788	7496	16	5-bit parallel-in, parallel-out shift register	.49	.39	.29
50796	7497	16	Synch. 6-bit binary rate multipliers	3.49	2.79	2.39
49234	74107*	14	Dual JK flip-flop with clear	.39	.30	.20
49251	74109	16	Dual positive edge triggered JK flip-flop	.37	.34	.31
49293	74116	24	Dual 4-bit latches with clear	.99	.76	.65
49322	74121	14	Monostable multivibrator	.99	.89	.79
49349	74122	14	Retriggerable mono. multivibrator with clear	.69	.59	.45
49357	74123*	16	Dual retriggerable mono. multivibrator	.89	.79	.69
49373	74125	14	Quad bus buffer tri-state (DM8093N)	.89	.79	.69
49381	74126	14	Quad bus buffer tri-state (DM8094N)	.99	.89	.79
49411	74132*	14	Quad 2-input NAND Schmitt trigger	.89	.79	.69
49496	74148	16	8 to 3 line octal priority encoder	.89	.79	.69
49509	74150	24	16 to 1 line multiplexer	1.95	1.75	1.55
49525	74151*	16	8-input multiplexer	.29	.25	.14
49550	74153*	16	Dual 4/1 data selector/multiplexer	.28	.26	.23
49568	74154	24	4 to 16 line decoder/demultiplexer	2.25	1.95	1.75
49605	74157*	16	Quad 2/1 data selector	.34	.31	.28
49648	74160*	16	Decade counter with asynch. clear	.29	.26	.24
49664	74161	16	Synchronous 4-bit counter	.39	.35	.25
49672	74163	16	Synchronous 4-bit counter	.37	.33	.29
49681	74164	14	8-bit serial shift register	.35	.29	.25
49699	74165	16	8-bit serial shift register, parallel load	.49	.45	.29
49779	74174*	16	Hex D-type flip-flop with clear	.49	.39	.32
49795	74175*	16	Quad D-type flip-flop with clear	.49	.45	.29
49824	74179	16	4-bit parallel-access shift register	2.95	2.65	2.39

*10 pieces included in 7400 kit on this page **20 pieces included in 7400 kit on this page

7400 series (Continued)

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
49832	74180	14	9-bit odd/even parity generator/checker	$.19	$.17	$.15
49841	74181	24	Arithmetic logic unit/function generator	1.95	1.75	1.55
49883	74189	16	64-bit RAM tri-state (DM8599N)	3.59	3.25	2.95
49891	74190	16	Up/down decade counter	4.95	4.49	3.95
49904	74191	16	Binary up/down counter	1.18	1.09	.99
49912	74192	16	Decade up/down counter with clear	3.95	3.59	3.25
49939	74193	16	Binary up/down counter with clear	1.39	1.19	1.09
49955	74194	16	4-bit bi-directional shift register	1.25	.99	.79
49963	74195	16	4-bit parallel-access shift register	1.95	1.75	1.59
50104	74259	16	8-bit addressable latch (9334)	.59	.53	.49
50171	74279*	16	Quad set-reset latch	.79	.69	.65
88225	SDLD001A	—	Texas Instruments TTL Data Book	34.95	31.49	29.95

7400 Series IC Cabinet Kit

$183 Value

Get a total of 350 pieces comprised of 30 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

See page 48 for kit details

Part No.	Description	1	10
84953	350 pcs. 7400 series IC cabinet kit (30 types noted by */**)	$139.95	$125.95

74C00 Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
44222	74C00	14	Quad 2-input NAND gate	$.49	$.39
63538	74C02	14	Quad 2-input NOR gate	1.15	1.05
44231	74C04	14	Hex inverter (CD4069)	.39	.35
44257	74C14	14	Hex inverter Schmitt trigger (CD40106)	.39	.35
44441	74C74	14	Dual D flip-flop	1.29	1.19
44361	74C221	16	Dual monostable multivibrator	3.95	3.59
13469	74C367	16	Hex buffer tri-state (80C97/CD4503)	.49	.45
44396	74C373	20	Octal D-type flip-flop with clear tri-state	3.95	3.59
44409	74C374	20	Octal D-type flip-flop tri-state (INS82C06N)	1.49	1.25
44564	74C922	18	16-key keyboard encoder (INS8245N)	6.95	6.25
44572	74C923	20	20-key keyboard encoder (INS8246N)	6.95	6.25
44581	74C925	16	4-digit CTR with MUX D segment driver	6.95	5.95
44599	74C926	18	4-digit CTR with MUX D segment driver	7.95	6.95

74LS00 Series

SOIC Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
46252	74LS00**	14	Quad 2-input NAND gate	$.25	$.23	$.20
198361	74LS00M◆	SOIC-14	Quad 2-input NAND gate	.49	.35	.32
46287	74LS02**	14	Quad 2-input NOR gate	.25	.19	.17
198379	74LS02M◆	SOIC-14	Quad 2-input NOR gate	.49	.35	.32
46308	74LS03	14	Quad 2-input NAND gate (O.C.)	.32	.29	.25
46316	74LS04**	14	Hex inverter	.29	.25	.19
198387	74LS04M◆	SOIC-14	Hex inverter	.49	.35	.32
46341	74LS05*	14	Hex inverter (O.C.)	.29	.25	.19
198395	74LS05M◆	SOIC-14	Hex inverter (O.C.)	.49	.35	.32
46359	74LS06	14	Hex inverter buffer/driver (O.C.)	.49	.45	.39
46367	74LS07	14	Hex buffer/driver (O.C. hi-voltage)	.89	.79	.69
198408	74LS07M◆	SOIC-14	Hex buffer/driver (O.C. hi-voltage)	.85	.70	.55
46375	74LS08**	14	Quad 2-input AND gate	.29	.26	.23
198416	74LS08M◆	SOIC-14	Quad 2-input AND gate	.49	.35	.32
46391	74LS09	14	Quad 2-input AND gate (O.C.)	.25	.19	.15
46404	74LS10*	14	Triple 3-input NAND gate	.29	.25	.19
198424	74LS10M◆	SOIC-14	Triple 3-input NAND gate	.49	.35	.32

*10 pieces included in 74LS00 kit on page 5 **20 pieces included in 74LS00 kit on page 5

IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts • Color: white

22103

Part No.	Product No.	Description	1	10	25
22103	JTC16	16-pin (for 8, 14 and 16-pin ICs)	$5.95	$5.35	$4.89
22120	JTC20	20-pin (for 18 and 20-pin ICs)	7.95	7.15	6.45
22162	JTC28	28-pin	10.95	9.95	8.95
22189	JTC40	40-pin	11.95	10.95	9.95

Call for pricing on quantities over 500 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

74LS00 Series (Continued) SOIC Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
46439	74LS11*	14	Triple 3-input AND gate	$.29	$.25	$.19
198432	74LS11M◆	SOIC-14	Triple 3-input AND gate	.49	.35	.32
46640	74LS14*	14	Hex inverter Schmitt trigger	.25	.19	.17
198441	74LS14M◆	SOIC-14	Hex inverter Schmitt trigger	.45	.35	.25
47095	74LS20*	14	Dual 4-input NAND gate	.25	.19	.17
198459	74LS20M◆	SOIC-14	Dual 4-input NAND gate	.49	.35	.32
47108	74LS21	14	Dual 4-input AND gate	.25	.19	.17
47378	74LS27	14	Triple 3-input NOR gate	.25	.17	.14
47458	74LS30*	14	8-input NAND gate	.25	.19	.17
198467	74LS30M◆	SOIC-14	8-input NAND gate	.49	.35	.32
47466	74LS32**	14	Quad 2-input OR gate	.25	.22	.19
198475	74LS32M◆	SOIC-14	Quad 2-input OR gate	.49	.35	.32
47597	74LS37	14	Quad 2-input NAND gate buffer	.39	.35	.29
47693	74LS38	14	Quad 2-input NAND gate buffer (O.C.)	.29	.26	.23
47773	74LS42	16	BCD-to-decimal decoder/driver	.69	.59	.49
47790	74LS47*	16	BCD to 7-seg. decoder/driver (O.C.)	.99	.89	.79
198483	74LS47M◆	SOIC-16	BCD to 7-seg. decoder/driver (O.C.)	.65	.45	.35
47811	74LS48	16	BCD to 7-seg. decoder/driver	4.95	3.85	3.19
47992	74LS73*	14	Dual JK flip-flop with clear	.49	.45	.39
48004	74LS74**	14	Dual D flip-flop	.29	.25	.22
198491	74LS74M◆	SOIC-14	Dual D flip-flop	.45	.35	.25
48021	74LS75*	16	4-bit bi-stable latch	.55	.45	.39
198504	74LS75M◆	SOIC-16	4-bit bi-stable latch	.45	.35	.25
48039	74LS76	16	Dual JK flip-flop with preset and clear	.69	.59	.49
48063	74LS83	16	4-bit binary full adder	.45	.39	.35
48071	74LS85*	16	4-bit magnitude comparator	.35	.29	.25
198512	74LS85M◆	SOIC-16	4-bit magnitude comparator	.45	.35	.25
48098	74LS86*	14	Quad EXCLUSIVE-OR gate	.29	.25	.22
198521	74LS86M◆	SOIC-14	Quad EXCLUSIVE-OR gate	.45	.35	.25
48119	74LS90*	14	Decade counter	.49	.45	.39
198539	74LS90M◆	SOIC-14	Decade counter	.65	.45	.35
48143	74LS92	14	Divide-by-12 counter	.45	.39	.35
48151	74LS93*	14	4-bit binary counter	.69	.59	.49
198547	74LS93M◆	SOIC-14	4-bit binary counter	1.29	.99	.79
48178	74LS95	14	4-bit parallel-access shift register	.89	.79	.69
46412	74LS107	14	Dual JK flip-flop with clear	.25	.19	.17
46421	74LS109	16	Dual JK pos. edge-trig. flip-flop	.25	.19	.17
46447	74LS112	16	Dual JK neg. edge-trig. flip-flop	.25	.19	.17
46471	74LS122	14	Retrig. mono. multivibrator comm. CLK	.39	.35	.29
46480	74LS123*	16	Dual mono. multivibrator with clear	.35	.29	.25
198555	74LS123M◆	SOIC-16	Dual mono. multivibrator with clear	.55	.40	.30
46501	74LS125*	14	Quad bus buffer neg. enable tri-state	.35	.25	.20
46527	74LS126	14	Quad bus buffer tri-state	.35	.25	.20
46551	74LS132	14	Quad 2-input NAND Schmitt trigger	.35	.29	.25
46586	74LS136	14	Quad EXCLUSIVE-OR gate (O.C.)	.35	.29	.15
46607	74LS138**	16	3 to 8 decoder/demultiplexer	.29	.25	.22
198563	74LS138M◆	SOIC-16	3 to 8 decoder/demultiplexer	.65	.45	.40
46623	74LS139*	16	2 to 4 decoder/demultiplexer	.29	.25	.19
46666	74LS145	16	BCD-to-decimal decoder/driver	.49	.45	.39
46674	74LS147	16	10 to 4 priority encoder	.99	.89	.79
46682	74LS148	16	8 to 3 priority encoder	.79	.65	.45
46703	74LS151*	16	8-input multiplexer	.29	.25	.22
198571	74LS151M◆	SOIC-16	8-input multiplexer	.65	.45	.40
46720	74LS153	16	Dual 4-to-1 selector/multiplexer	.29	.25	.22
46738	74LS154	24	4 to 16 line decoder/demultiplexer	1.95	1.75	1.55
46754	74LS155*	16	Dual 2/4 demultiplexer	.39	.35	.32
46762	74LS156	16	Dual 2/4 demultiplexer (O.C.)	.45	.39	.35
46771	74LS157*	16	Quad 2/1 data selector	.29	.25	.22
198580	74LS157M◆	SOIC-16	Quad 2/1 data selector	.65	.45	.40
46800	74LS160	16	Decade counter with asynch. clear	.69	.59	.49
46818	74LS161	16	Synch 4-bit counter (733W01729L1)	.35	.29	.25
46842	74LS163	16	Fully synch. 4-bit counter	.35	.29	.25
46851	74LS164	14	8-bit serial shift register	.35	.29	.25
46877	74LS165	16	8-bit serial shift register, parallel load	.49	.45	.39
46885	74LS166	16	8-bit shift register, parallel load	.35	.25	.20
46906	74LS169	16	Synch. binary up/down counter	.59	.49	.35

*10 pieces included in 74LS00 kit on this page **20 pieces included in 74LS00 kit on this page

74LS00 Series (Continued) SOIC Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
46922	74LS173	16	4-bit D-type reg. tri-state	$.39	$.35	$.29
46931	74LS174*	16	Hex D flip-flop with clear	.29	.25	.17
46957	74LS175*	16	Quad D flip-flop with clear	.29	.25	.22
46973	74LS181	24	Arithmetic logic unit/function generator	1.09	.99	.89
46990	74LS190	16	Synchronous up/down counter	1.19	1.09	.99
47001	74LS191	16	Up/down binary counter	.39	.35	.29
47010	74LS192	16	Decade up/down counter with clear	3.95	3.59	3.25
47036	74LS193*	16	Binary up/down counter with clear	.59	.49	.45
198598	74LS193M◆	SOIC-16	Binary up/down counter with clear	.85	.70	.55
47052	74LS194	16	4-bit bi-directional shift register	.59	.49	.45
198601	74LS194M◆	SOIC-16	4-bit bi-directional shift register	1.15	.79	.69
47061	74LS195	16	4-bit parallel-access shift register	.35	.29	.25
47124	74LS221	16	Dual mono. multivibrator Schmitt trigger	.39	.35	.29
47141	74LS240*	20	Octal invert. line driver tri-state	.39	.29	.25
198619	74LS240M◆	SOIC-20	Octal invert. line driver tri-state	.79	.59	.49
47167	74LS241	20	Octal bus/line driver tri-state	.39	.29	.25
47175	74LS243	14	Quad transceiver tri-state	.33	.28	.27
47183	74LS244*	20	Octal driver tri-state	.39	.35	.29
198627	74LS244M◆	SOIC-20	Octal driver tri-state	.69	.52	.39
47212	74LS245*	20	Octal bus transceiver tri-state	.39	.35	.29
198635	74LS245M◆	SOIC-20	Octal bus transceiver tri-state	.69	.51	.39
47247	74LS247	16	BCD to 7-segment decoder/driver (O.C.)	.79	.69	.49
47271	74LS251	16	8-channel multiplexer tri-state	.35	.25	.20
47298	74LS257	16	Quad 2-input multiplexer tri-state	.33	.30	.27
47327	74LS259	16	8-bit addressable latch	.39	.35	.29
47360	74LS266	14	Quad EXCLUSIVE-NOR gate (O.C.)	.35	.29	.25
47386	74LS273*	20	Octal D-type flip-flop with clear	.39	.35	.29
198643	74LS273M◆	SOIC-20	Octal D-type flip-flop with clear	.69	.52	.39
47407	74LS279	16	Quad set-reset latches	.29	.22	.18
47415	74LS280	14	9-bit odd/even parity generator/checker	.69	.62	.55
47423	74LS283	16	4-bit binary full add with fast carry	.45	.39	.29
47440	74LS299	20	8-bit universal shift/storage register	1.19	1.07	.99
47546	74LS365	16	Hex buffer with logical OR tri-state	.69	.62	.55
47554	74LS366	14	Hex buffer/inverter tri-state	.19	.16	.14
47562	74LS367	16	Hex buffer tri-state	.29	.25	.22
47600	74LS373*	20	Octal D flip-flop tri-state	.39	.35	.29
198651	74LS373M◆	SOIC-20	Octal D flip-flop tri-state	.49	.46	.44
47634	74LS374*	20	Octal D F/F edge-trig tri-state	.39	.35	.29
198660	74LS374M◆	SOIC-20	Octal D F/F edge-trig tri-state	.69	.52	.39
47669	74LS377	20	Octal D register common enable	.39	.29	.24
47722	74LS390	16	Dual 4-bit decade counter	.39	.35	.29
47731	74LS393	14	Dual 4-bit binary counter	.45	.39	.35
171803	74LS491	24	10-bit up/down counter	7.95	7.15	6.45
47861	74LS540	20	Octal invert. buffer/line driver tri-state	.49	.45	.39
47870	74LS541	20	Octal buffer/line driver tri-state	.69	.59	.49
64418	74LS573	20	Octal D-type F/F latch tri-state	1.29	1.19	1.09
64426	74LS574	20	Octal D-type F/F edge-trig. tri-state	1.29	1.19	1.09
47909	74LS590	16	8-bit binary counter without reg. tri-state	3.25	2.55	2.25
103974	74LS595	16	8-bit serial-to-parallel shift reg. tri-state	3.95	3.05	2.35
47950	74LS645	20	Octal bus transceiver tri-state	1.69	1.49	1.39
47984	74LS688	20	8-bit magnitude comparator	1.09	.89	.69

74LS00 Series IC Cabinet Kit

Get a total of 420 pieces comprised of 35 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

See page 48 for kit details

$141 Value

Part No.	Description	1	10
84961	420 pc. 74LS series IC cabinet kit (35 types noted by */**)	$109.95	$99.95
130391	Refill package for 84961 kit (420 pcs.)	94.95	85.95

74S00 Series Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
48320	74S10	14	Triple 3-input NAND gate	$.65	$.59
48750	74S32	14	Quad 2-input OR gate	.75	.69
48944	74S74	14	Dual D flip-flop	.59	.55
48531	74S188	16	256-bit (32 x 8) PROM O.C. (27S18)	5.95	5.39
48557	74S189	16	64-bit (16 x 4) RAM tri-state (27S03)	3.95	3.49

Surface Mount

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 500 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

74S00 Series (Continued) Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
48696	74S287	16	1k-bit (256 x 4) PROM tri-state (TBP24S10)	$4.95	$4.43
48717	74S288	16	256-bit (32 x 8) PROM tri-state (TBP18S030N)	4.95	4.49
48768	74S373	20	Octal D-type flip-flop tri-state	2.79	2.59
48805	74S387	16	1k-bit (256 x 4) PROM O.C. (TBP24SA10N)	4.15	3.69
52513	74S428	28	System contr./bus driver (8228)	2.95	2.65
48864	74S472	20	4k-bit (512 x 8) PROM tri-state (TBP28S42N)	8.95	7.95
48910	74S571	16	2k-bit (512 x 4) PROM tri-state (AM27S13)	6.95	4.95
48928	74S573	18	4k-bit (1024 x 4) PROM tri-state (53S441J)	3.49	3.14

74HC00 Series SOIC Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
45161	74HC00	14	Quad 2-input NAND gate (6231581)	$.19	$.17	$.15
197106	74HC00M◆	SOIC-14	Quad 2-input NAND gate	.32	.26	.23
45188	74HC02	14	Quad 2-input NOR gate	.19	.15	.12
197114	74HC02M◆	SOIC-14	Quad 2-input NOR gate	.32	.26	.23
45209	74HC04	14	Hex inverter (buffered)	.19	.17	.15
197122	74HC04M◆	SOIC-14	Hex inverter (buffered)	.32	.26	.23
45225	74HC08	14	Quad 2-input AND gate	.19	.17	.15
197131	74HC08M◆	SOIC-14	Quad 2-input AND gate	.32	.26	.23
45233	74HC10	14	Triple 3-input NAND gate	.25	.19	.16
45268	74HC11	14	Triple 3-input AND gate	.29	.26	.23
45364	74HC14	14	Hex inverter Schmitt trigger	.25	.22	.19
197149	74HC14M◆	SOIC-14	Hex inverter Schmitt trigger	.32	.26	.23
45786	74HC30	14	8-input NAND gate	.29	.26	.23
45794	74HC32	14	Quad 2-input OR gate	.19	.17	.13
197157	74HC32M◆	SOIC-14	Quad 2-input OR gate	.32	.26	.23
46130	74HC74	14	Dual D flip-flop	.29	.25	.22
197165	74HC74M◆	SOIC-14	Dual D flip-flop	.38	.29	.26
46172	74HC85	16	4-bit magnitude comparator	.59	.49	.45
46181	74HC86	14	Quad EXCLUSIVE-OR gate	.35	.25	.20
45292	74HC123	16	Dual retrig. monostable multivibrator	.35	.25	.20
45305	74HC125	14	Quad bus buffer tri-state	.39	.35	.29
45321	74HC132	14	Quad 2-input NAND Schmitt trigger	.35	.29	.19
45330	74HC138	16	3-to-8 decoder/demultiplexer	.35	.29	.25
197173	74HC138M◆	SOIC-16	3-to-8 decoder/demultiplexer	.46	.38	.28
45356	74HC139	16	2-to-4 decoder/demultiplexer	.35	.29	.25
45401	74HC154	24	4/16 line decoder (.3"W)	1.19	1.09	.99
111739	74HC154W	24	4/16 line decoder (.6"W)	1.49	1.35	1.09
45428	74HC157	16	Quad 2-input multiplexer	.35	.32	.28
45452	74HC161	16	Synchronous 4-bit counter	.35	.29	.25
45479	74HC163	16	Synchronous 4-bit counter	.49	.45	.40
45487	74HC164	14	8-bit serial shift register	.39	.35	.29
197181	74HC164M◆	SOIC-14	8-bit serial shift register	.48	.45	.40
45495	74HC165	16	Parallel load 8-bit serial shift register	.35	.29	.25
197190	74HC165M◆	SOIC-16	Parallel load 8-bit serial shift register	.48	.45	.40
45508	74HC174	16	Hex D flip-flop with clear	.49	.44	.40
45541	74HC192	16	Decade up/down counter with clear	1.59	1.49	1.39
45559	74HC193	16	Binary up/down counter with clear	.69	.59	.49
45604	74HC221	16	Dual mono. multivibrator Schmitt trigger	.49	.45	.35
45612	74HC240	20	Octal inverting line driver tri-state	.49	.45	.39
45655	74HC244	20	Octal driver tri-state	.39	.35	.29
197202	74HC244M◆	SOIC-20	Octal driver tri-state	.60	.44	.34
45671	74HC245	20	Octal transceiver tri-state	.45	.34	.28
197211	74HC245M◆	SOIC-20	Octal transceiver tri-state	.60	.44	.34
45743	74HC273	20	Octal D-type flip-flop with clear	.69	.59	.49
45831	74HC373	20	Octal D-type flip-flop tri-state	.45	.39	.35
197229	74HC373M◆	SOIC-20	Octal D-type flip-flop tri-state	.60	.44	.34
45858	74HC374	20	Octal D-type flip-flop edge-trig tri-state	.45	.34	.28
197237	74HC374M◆	SOIC-20	Octal D-type flip-flop edge-trig tri-state	.60	.44	.34
45874	74HC393	14	Dual 4-bit binary counter	.59	.49	.35
109760	74HC540	20	Octal invert. buffer/line driver tri-state	.65	.55	.45
46050	74HC541	20	Octal buffer/line driver tri-state	.69	.55	.35
46076	74HC573	20	Octal D-type flip-flop tri-state	.69	.55	.35
197245	74HC573M◆	SOIC-20	Octal D-type flip-flop tri-state	.65	.50	.35
46084	74HC574	20	Octal D-type flip-flop tri-state	.59	.45	.35
197253	74HC574M◆	SOIC-20	Octal D-type flip-flop tri-state	.65	.48	.35

74HC00 Series (Continued) Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
88090	74HC590	16	8-bit binary counter with output reg. tri-state	$.89	$.75	$.64
46105	74HC595	16	8-bit serial-to-parallel shift reg. tri-state	.99	.89	.79
46113	74HC688	20	8-bit mag. comparator	.69	.55	.35
45891	74HC4017	16	Decade ctr./div. with 10 decoded outputs	.59	.49	.45
45903	74HC4020	16	14-stage binary counter	.59	.45	.35
45920	74HC4040	16	12-stage binary counter	.69	.59	.39
45938	74HC4046	16	CMOS phase lock loop	.89	.75	.55
45954	74HC4050	16	Hex buffer/converter	.25	.19	.19
88102	74HC4051	16	Single 8-channel multi/demultiplexer	.89	.69	.59
45962	74HC4060	16	14-stage binary counter	.75	.65	.45
45971	74HC4066	14	Quad analog switch	.49	.45	.35
46009	74HC4514	S-24	4/16-line decoder with latch (.3"W)	1.95	1.75	1.55
46017	74HC4538	16	Dual retrig. mono. multivibrator	.59	.49	.29

74HCT00 Series Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
44871	74HCT00	14	Quad 2-input NAND gate (Y560820T)	$.29	$.25	$.19
44898	74HCT04	14	Hex inverter	.29	.22	.16
63765	74HCT05	14	Hex inverter (O.C.)	.19	.16	.14
44901	74HCT08	14	Quad 2-input AND gate	.25	.19	.12
44935	74HCT14	14	Hex inverter Schmitt trigger	.39	.35	.29
45057	74HCT32	14	Quad 2-input OR gate	.29	.22	.18
45137	74HCT74	14	Dual D flip-flop	.29	.25	.22
44927	74HCT138	16	3-to-8 decoder/demultiplexer	.29	.25	.22
63773	74HCT139	16	2-to-4 decoder/demultiplexer	.29	.25	.22
88057	74HCT154	24	4-to-16 decoder/demultiplexer	1.19	1.09	.99
45014	74HCT240	20	Octal inverting line driver tri-state	.49	.45	.39
45022	74HCT244	20	Octal driver tri-state	.35	.29	.19
45031	74HCT245	20	Octal transceiver tri-state	.45	.39	.35
45049	74HCT273	20	Octal D-type flip-flop with clear	.27	.25	.22
45065	74HCT373	20	Octal D-type flip-flop tri-state	.49	.45	.29
45073	74HCT374	20	Octal D-type flip-flop edge-trig. TS	.49	.45	.29
99303	74HCT541	20	Octal buffer/line driver tri-state	.69	.59	.45
45090	74HCT573	20	Octal D-type latched flip-flop tri-state	.69	.59	.45
45102	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state	.69	.59	.49
45129	74HCT688	20	8-bit magnitude comparator	.69	.59	.49

CD4000 Series SOIC Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
12562	CD4001**	14	Quad 2-input NOR gate	$.25	$.19	$.17
197261	CD4001M◆	SOIC-14	Quad 2-input NOR gate	.32	.26	.23
12597	CD4007	14	Dual comp. pair with inverter	.29	.25	.22
12634	CD4011**	14	Quad 2-input NAND gate	.25	.19	.17
197270	CD4011M◆	SOIC-14	Quad 2-input NAND gate	.32	.26	.23
12677	CD4013**	14	Dual D flip-flop with set/reset	.25	.19	.17
197288	CD4013M◆	SOIC-14	Dual D flip-flop with set/reset	.32	.26	.23
12706	CD4015*	16	Dual 4-stage static shift register	.29	.25	.22
12722	CD4016*	14	Quad bilateral switch	.29	.25	.22
12749	CD4017*	16	Decade counter/divider	.35	.29	.25
197296	CD4017M◆	SOIC-16	Decade counter/divider	.58	.42	.32
12773	CD4018	16	Presettable divide-by-N counter	.49	.45	.39
12802	CD4020*	16	14-stage binary/ripple counter	.45	.39	.35
197309	CD4020M◆	SOIC-16	14-stage binary/ripple counter	.59	.45	.35
12829	CD4021	16	8-stage static shift register	.35	.29	.19
54666	CD4022	16	Div. by 8-counter/driver w/8-decoded outputs	.45	.35	.29
12845	CD4023*	14	Triple 3-input NAND gate	.25	.19	.14
12853	CD4024*	14	7-stage binary counter	.35	.29	.25
12870	CD4025	14	Triple 3-input NOR gate	.25	.22	.19
12888	CD4027*	16	Dual JK master-slave flip-flop	.25	.19	.17
197317	CD4027M◆	SOIC-16	Dual JK master-slave flip-flop	.42	.36	.32
12909	CD4028	16	BCD-to-decimal decoder	.35	.31	.27
12925	CD4029	16	Presettable up/down counter	.49	.45	.39
197325	CD4029M◆	SOIC-16	Presettable up/down counter	.59	.45	.35
12950	CD4040*	16	12-stage binary/ripple counter	.39	.35	.29
197333	CD4040M◆	SOIC-16	12-stage binary/ripple counter	.58	.42	.32
12984	CD4042	16	Quad clocked D latch	.49	.45	.39
12992	CD4043	16	Quad NOR R-S latch tri-state	.35	.29	.25

*10 pieces included in CD4000 kit on page 7 **20 pieces included in CD4000 kit on page 7

Call for pricing on quantities over 500 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

CD4000 Series (Continued) SOIC Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
13004	CD4044	16	Quad 3-state NAND R-S latch tri-state	$.49	$.45	$.39
13012	CD4046*	16	Micropower phase-locked loop	.49	.45	.39
13039	CD4047	14	Monostable/astable multivibrator	.59	.49	.45
13055	CD4049**	16	Hex/buffer/converter (inverting)	.25	.19	.17
197341	CD4049M◆	SOIC-16	Hex/buffer/converter (inverting)	.36	.30	.27
13071	CD4050*	16	Hex/buffer/converter (N-inverting)	.25	.19	.17
197350	CD4050M◆	SOIC-16	Hex/buffer/converter (N-inverting)	.36	.30	.27
13098	CD4051*	16	Single 8-channel multi./demultiplexer	.45	.39	.35
197368	CD4051M◆	SOIC-16	Single 8-channel multi./demultiplexer	.49	.39	.32
13119	CD4052	16	Diff. 4-channel multi./demultiplexer	.45	.39	.29
13127	CD4053	16	Triple 2-channel multi./demultiplexer	.45	.39	.35
13151	CD4060	16	14-stage ripple-carry binary	.49	.45	.39
13186	CD4066**	14	Quad bilateral switch	.35	.29	.25
197376	CD4066M◆	SOIC-14	Quad bilateral switch	.36	.23	.23
13215	CD4067	24	16-channel analog multi/demultiplexer	1.75	1.55	1.35
13231	CD4069*	14	Hex inverter (74C04)	.25	.19	.17
197384	CD4069M◆	SOIC-14	Hex inverter (74C04)	.32	.26	.23
13258	CD4070*	14	Quad EXCLUSIVE-OR gate (74C86)	.25	.19	.15
13274	CD4071*	14	Quad 2-input OR gate	.25	.19	.17
197392	CD4071M◆	SOIC-14	Quad 2-input OR gate	.32	.26	.23
13354	CD4081*	14	Quad 2-input AND gate	.25	.19	.17
197405	CD4081M◆	SOIC-14	Quad 2-input AND gate	.32	.26	.23
13400	CD4093*	14	Quad 2-input NAND Schmitt trigger	.29	.25	.22
197413	CD4093M◆	SOIC-14	Quad 2-input NAND Schmitt trigger	.36	.26	.23
13426	CD4094	16	8-stage shift-and-store bus register	.49	.45	.39
13434	CD4098	16	CMOS/MOS dual mono. multivibrator	.49	.39	.32
13442	CD4099	16	8-bit addressable latch	.49	.35	.25
44257	CD40106	14	Hex inverter Schmitt trigger (74C14)	.39	.35	.29
13469	CD4503	16	Tri-state hex buffer (74C367) 80C97	.49	.45	.39
13485	CD4510	16	BCD up/down counter	.69	.59	.49
13493	CD4511*	16	BCD to 7-seg. latch/decoder/driver	.69	.59	.49
197421	CD4511M◆	SOIC-16	BCD to 7-seg. latch/decoder/driver	.75	.70	.65
13514	CD4512	16	8-channel data selector	.59	.49	.45
13522	CD4514	24	4-bit latch/4-16 line decoder	.89	.79	.69
13549	CD4516	16	Binary up/down counter	.49	.45	.39
13565	CD4518	16	Dual BCD up counter	.49	.45	.39
13581	CD4520	16	Dual binary up counter	.49	.45	.35
13590	CD4522	16	Program. BCD divide-by-N counter	.59	.49	.45
13602	CD4526	16	Divide-by-N counter (binary)	.55	.47	.42
13611	CD4528	16	Dual monostable multivibrator	.69	.59	.49
13653	CD4538*	16	Dual precision monostable multivibrator	.49	.45	.39
197430	CD4538M◆	SOIC-16	Dual precision monostable multivibrator	.69	.48	.43
13688	CD4541	14	Oscillator/programmable timer	.49	.45	.39
13696	CD4543*	16	BCD to 7-segment decoder (LCD)	.69	.59	.49
13709	CD4553	16	3-digit BCD counter	2.95	2.75	2.49
13725	CD4556	16	Dual binary 1 of 4 decoder inverter	.35	.28	.25
13768	CD4584*	14	Hex Schmitt trigger (74C14) 40106	.39	.35	.29
197448	CD4584M◆	SOIC-14	Hex Schmitt trigger (74C14) 40106	.42	.36	.32

*10 pieces included in CD4000 kit on this page **20 pieces included in CD4000 kit on this page

CD4000 Series IC Cabinet Kit

$99 Value

Get a total of 300 pieces comprised of 25 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

See page 48 for kit details

Part No.	Description	1	10
84970	300 pc. CD4000 series IC cabinet kit (25 types noted by */**)	$79.95	$71.95
130403	Refill package for 84970 kit (300 pcs.)	64.95	57.95

6000 Series/Commodore Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
43191	6502	40	MPU with internal clock (1MHz)	$6.95	$4.95
43166	65C02	40	MPU with internal clock (CMOS)	6.95	6.25
43254	6522	40	VIA (versatile interface adapter) 1MHz	1.95	1.75
43297	6532	40	128 x 8 RAM, I/O timer array	7.95	5.59
43318	6551	28	ACIA (asynchronous comm. interface adapter)	3.95	3.49
43182	65C51	28	ACIA (asynchronous comm. interface adapter) CMOS	2.95	2.75
52951	8564	48	VIC (video interface chip for C128)	.19	.14

UARTs/USARTs/DUARTs/MUARTs Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
43158	6402	40	CMOS/LSI UART (TR1863)	$4.95	$4.49
27588	NS16450N	40	ACE (IBM-AT software compat.)	3.95	3.59
27570	NS16C450N	40	CMOS ACE (IBM-AT software compat.) (82C450)	5.95	5.39
27596	NS16550AN	40	Universal asynch. rcvr/trans. w/ FIFOs (PC16550DN)	5.95	5.39

Harris/ Intersil Type Series Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
43748	7106CPL	40	3 1/2-digit LCD single-chip A/D converter	$2.39	$2.19
43756	7107CPL	40	3 1/2-digit LED single-chip A/D converter	2.39	2.19
43764	7109CPL	40	12-bit A/D converter	5.95	5.39
43801	7217AIPI	28	4-digit LED up/down counter (com. cathode)	8.95	7.95
51140	7555IPA	8	CMOS timer (LM555CN)	.59	.49
51174	7660CPA	8	CMOS volt converter (+5 to ± 5V) (M660AN)	1.09	.99
172152	8020ACPD	14	Quad current switch for D/A conversion	.25	.19
51879	8038CCPD	14	Waveform generator/volt control OSC	3.49	3.19

MOTOROLA Type Series Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
25435	MC846P	14	Quad 2-input gate	$3.95	$3.59
24942	MC1350P	8	Video IF amp (12V operation)	1.29	1.19
14912	MC1408-6	16	8-bit D to A converter (DAC0806LCN)	1.79	1.59
14947	MC1408-8	16	8-bit D to A converter (DAC0808LCN)	1.49	1.29
118578	MC1495L	14	Linear four quadrant multiplier	9.95	8.95
23211	MC1496P	14	Balanced modulator/demodulator (LM1496N)	.89	.79
25216	MC3479P	16	Biphase stepper motor driver	4.95	4.49
25232	MC3486P	16	Quad EIA-422/423 line rec. with 3-state outputs	.59	.49
25259	MC3487P	16	Quad EIA-422 line driver with 3-state outputs	.59	.49
25275	MC4044P	14	Frequency phase detector (11C44)	8.95	7.95
25355	MC68701	40	8-bit EPROM (2048 USA) MPU w/ 128B RAM & I/O	15.95	13.95
25021	MC14411P	24	Bit rate frequency generator	6.95	6.25
25064	MC14490P	16	Hex contact bounce eliminator	5.95	5.39
118586	MC145151P	28	Parallel input PLL freq. synthesizer	5.95	5.39
25099	MC145406P	16	RS232-C/V.28 driver/rec. (CMOS)(75C1406N)	1.95	1.75
25101	MC146818	24	Real time clock plus RAM	4.95	4.25

Signetics Type Series Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
27844	N82S23	16	256-bit PROM open collector	$5.95	$5.39
27748	N82S100	28	Field prog. logic array (16x4x8 tri-state) (PLS100)	14.95	13.49
27764	N82S123	16	256-bit PROM (32x8 tri-state) (27S19)	5.95	4.35
27772	N82S126	16	1024-bit PROM (256x4 open collector) (27S20)	6.95	6.25
27781	N82S129	16	1024-bit PROM (256x4 tri-state) (AM27S21)	7.95	6.95
27799	N82S131	16	2048-bit PROM (512x4 tri-state) (AM27S13)	6.95	4.95
27801	N82S137	18	4096-bit PROM (1024x4 tri-state)	4.95	4.49
27810	N82S181	24	8192-bit bipolar PROM (1024x8 tri-state) (DM87S181)	6.95	5.95
27828	N82S185	18	8192-bit PROM (2048x4 tri-state) (AM27S185DC)	4.95	4.49
27836	N82S191	24	16,384-bit PROM (2048x8 tri-state)	6.95	6.25

MAXIM Type Linear Series Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
142535	MAX202CPE	16	+5V RS232 transceiver requires 0.1µF caps	$2.49	$2.25
24811	MAX232CPE	16	+5V powered, dual RS232 transmitter/receiver (0°C to +70°C)	1.95	1.79
106147	MAX232CWE	16	+5V powered, dual RS232 (SOIC)transmitter/receiver	1.95	1.75
106155	MAX232EPE	16	+5V powered, dual RS232 transmitter/receiver (-40°C to +85°C)	2.49	2.25
106163	MAX233CPP	20	+5V powered, multichannel RS232 drivers/receivers (no ext. components)	4.95	4.49
106171	MAX235CPG	24	+5V powered, five RS232 transmitter/ receiver (no ext. components)	9.95	8.95
106180	MAX238CNG	24	+5V powered, quad RS232 transmitter and receiver	4.75	4.25
106219	MAX690CPA	8	Microprocessor watchdog/battery switchover/reset generator	3.95	3.59
106227	MAX691CPE	16	Microprocessor watchdog/battery switchover/reset generator	5.49	4.95
106260	MAX1232CPA	8	Microprocessor monitor	2.49	2.25

Surface Mount

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 500 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

RCA Type Linear Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
12079	CA3046N	14	NPN transistor array (ULN2046)	$.49	$.35
12116	CA3080E	8	Op transconductance amp. (100135)	.69	.59
12124	CA3081N	16	Common emitter NPN array (ULN2081)	.69	.59
12159	CA3086N	14	Transistor array NPN (ULN2086)	.49	.39
12183	CA3130E	8	CMOS op amp.	1.19	1.09
12204	CA3140E	8	Bi-MOS op amp.	.79	.69
12239	CA3161E	16	BCD to 7-seg. decoder driver	2.19	1.95
12247	CA3162E	16	Dual slope & rate analog/digital convert	6.95	6.25
24168	CA3401N	14	Quad amp (LM3900N) (221-235)	.79	.69

ATMEL AT89C Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
168866	AT89C1051-24PC	20	8-bit MCU, 24MHz 1kb flash memory	$3.75	$2.97	$2.55
168874	AT89C2051-24PC	20	8-bit MCU, 24MHz 2kb flash memory	3.75	3.49	3.19
168891	AT89C51-20PC	40	8-bit MCU, 20MHz 4kb flash memory	3.75	3.49	3.19
168903	AT89C51-24PC	40	8-bit MCU, 24MHz 4kb flash memory	3.95	3.59	3.25
173930	AT89C52-20PC	40	8-bit MCU, 20MHz 8kb flash memory	4.95	4.49	3.95
168920	AT89C52-24PC	40	8-bit MCU, 24MHz 8kb flash memory	5.95	5.39	4.95
168938	AT89C52-24JC	44	8-bit MCU, 24MHz 8kb flash mem. PLCC	4.95	4.49	3.95
168946	AT89C55-24PC	40	8-bit MCU, 24MHz 20kb flash memory	6.95	6.25	5.75

Linear Series

Package (See page 9)

✳ Prepackaged: please order in increments of 10 or 100

Part No.	Product No.	Pkg	Description	1	10	100
23051	LH0002CN	DIP-10	Current amplifier	$9.95	$8.95	$7.95
27852	OP07	DIP-8	Ultra-low-offset-voltage op amp.	.99	.89	.79
193471	OP07CD✦	SOIC-8	Precision op amp.	✳	1.49	1.35
120715	LM10CN	DIP-8	Op amp and voltage reference	5.95	5.39	4.95
23106	LM10CLN	DIP-8	Low voltage (1.1 volt) op amp.	3.25	2.75	2.49
25751	MF10CN	DIP-20	General purpose dual active filter	3.25	2.75	2.49
120723	LM12CLK	TO-3/4	80W op amp.	29.95	27.95	25.95
16301	DS0026CN	DIP-8	Dual mos clk. driver (5MHz)(TC426CPA)	1.95	1.49	1.19
107094	LM34CZ	TO-92	Prec. F temp. sensor (-40˚F to +230˚F)	5.95	5.39	4.95
193480	LM34DM✦	SOIC-8	Prec. F temp. sensor (-55˚F to 300˚F)	✳	1.35	.99
155192	LM34DZ	TO-92	Prec. F temp. sensor (+32˚F to +212˚F)	1.75	1.55	1.35
193498	LM35DM✦	SOIC-8	Prec. C temp. sensor (-55˚C to 150˚C)	✳	1.49	1.09
192217	LM35DT	TO-220/3	Prec. C temp. sensor (-55˚C to 150˚C)	2.79	2.09	1.49
107107	LM35CZ	TO-92	Prec. C temp. sensor (-40˚C to 110˚C)	5.95	5.39	4.95
155740	LM35DZ	TO-92	Prec. C temp. sensor (0˚C to +100˚C)	1.75	1.55	1.35
33161	TL062CP	DIP-8	Low-power JFET op amp. (VCC 8-pin)	.69	.59	.49
33187	TL071CP	DIP-8	Low noise JFET op amp.	.39	.35	.29
193501	TL072CD✦	SOIC-8	Low noise JFET dual op amp.	✳	.45	.39
33195	TL072CP*	DIP-8	Low noise JFET dual op amp.	.39	.35	.29
193519	TL074CD✦	SOIC-8	Low noise JFET quad op amp.	✳	.45	.39
33216	TL074CN*	DIP-14	Low noise JFET quad op amp.	.55	.45	.39
33232	TL081CP	DIP-8	JFET-input op amp.	.39	.35	.31
193527	TL082CD✦	SOIC-8	JFET input dual op amp.	✳	.39	.35
33241	TL082CP*	DIP-8	JFET input dual op amp.	.49	.45	.39
193535	TL084CD✦	SOIC-14	JFET input quad op amp.	✳	.45	.39
33267	TL084CN*	DIP-14	JFET-input quad op amp.	.55	.45	.39
24811	MAX232CPE*	DIP-16	Dual RS232 receiver/transmitter	1.95	1.79	1.59
23392	LM301N*	DIP-8	Improved op amp.	.39	.35	.29
23464	LM308N*	DIP-8	Precision op amp.	3.95	3.59	3.25
23499	LM309K	TO-3/2	5V 1A regulator (0˚C to +125˚C)	4.95	4.49	3.95
193543	LM311D✦	SOIC-8	Voltage comparator	✳	.25	.19
23528	LM311N*	DIP-8	Voltage comparator	.29	.25	.22
192268	LM317AT	TO-220/3	3-terminal adjustable regulator	1.95	1.49	1.09
192276	LM317HVT	TO-39/3	3-terminal adjustable regulator	2.75	2.09	1.49
23544	LM317K	TO-3/2	1.5A adj. pos. reg. (1.2V-37V)	1.95	1.75	1.55
193551	LM317LM✦	SOIC-8	3-terminal adjustable regulator	✳	.35	.29
23552	LM317LZ	TO-92	100mA adj. pos. reg. (1.2V-37V)	.49	.39	.29
23579	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	.45	.39	.35
23608	LM318N	DIP-8	Precision hi-speed op amp.	.69	.59	.49
23632	LM319N	DIP-14	Hi-speed dual comparator	.79	.65	.49
23667	LM323K	TO-3/2	5V 3A positive reg.	3.95	3.59	3.25
23683	LM324N**	DIP-14	Low power quad op amp. (ULN4336)	.29	.25	.22

*10 pieces included in Linear kit on page 10 **20 pieces included in Linear kit on page 10

Linear Series

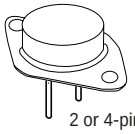
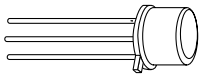
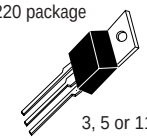
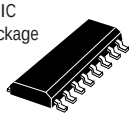
Package (See page 9)

✳ Prepackaged: please order in increments of 10 or 100

Part No.	Product No.	Pkg	Description	1	10	100
86721	LM324D✦	SOIC-14	Low power quad op amp.	✳	$.22	$.18
192559	LP324N	DIP-14	Micropower quad op amp.	1.49	1.09	.79
23721	LM331N	DIP-8	Prec. volt to freq. converter (150ppm/°C)	2.95	2.75	2.49
23739	LM334Z	TO-92	Adjust current source	.79	.69	.59
120820	LM335AZ	TO-92	Precision temperature sensor	2.95	2.75	2.36
193560	LM335M✦	SOIC-8	Precision temperature sensor	✳	1.95	1.49
23755	LM335Z	TO-92	Volt mode temperature sensor	.99	.89	.79
193578	LM336M-2.5✦	SOIC-8	Precision 2.5V shunt regulator diode	✳	.59	.49
23771	LM336Z	TO-92	Voltage reference (2.5V)	.79	.69	.59
23798	LM337K	TO-3/2	1.5A/3 term. adj. neg. reg.	3.49	3.15	2.59
193586	LM337LM	SOT-223	1.5A/3-terminal adj. neg. regulator	✳	1.09	.89
23819	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	.79	.69	.59
23835	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V)	3.95	3.59	3.25
192284	LM338T	TO-220/3	5A adjustable regulator	2.59	1.95	1.45
193594	LM339M✦	SOIC-14	Low pwr. low offset volt quad comparator	✳	.25	.22
23851	LM339N**	DIP-14	Quad comparator	.29	.25	.22
22904	LF347N	DIP-14	Quad JFET input op amp. (wide band)	.69	.55	.39
23915	LM348N	DIP-14	Quad 741 op amp. (UPC4741C)	.49	.45	.39
23931	LM350K	TO-3/2	3A/3 term. adj. pos. reg. (1.2V-33V)	3.95	3.59	3.25
23940	LM350T	TO-220/3	3 amp. adj. power regulator	1.75	1.55	1.35
22912	LF351N	DIP-8	BIFET op amp.	.49	.45	.39
22939	LF353N*	DIP-8	Dual BIFET op amp. (comp. w/ TL082CP)	.39	.35	.29
193607	LF356M✦	SOIC-8	JFET input op amp (wide band)	✳	.69	.59
22971	LF356N*	DIP-8	JFET input op amp. (wide band)	.79	.69	.59
22998	LF357N	DIP-8	JFET input op amp. (wide band decom.)	.79	.69	.59
120862	LM358AN	DIP-8	Low power dual op amp (elect improv.)	.69	.59	.49
193615	LM358D✦	SOIC-8	Low power dual op amp	✳	.25	.22
23966	LM358N*	DIP-8	Low power dual op amp.	.29	.25	.22
24037	LM380N	DIP-14	2-watt audio power amp.	1.19	1.09	.99
24088	LM383T	TO-220/5	7-watt audio high power amp.	5.95	5.39	4.95
24096	LM384N	DIP-14	5-watt audio amp.	1.75	1.55	1.35
120889	LM385BZ2.5	TO-92	Volt. ref. diode (2.5V±1.5%)	1.09	.99	.89
24109	LM385Z	TO-92	Volt. ref. diode (2.5V±3%)	.49	.35	.25
24117	LM385Z12	TO-92	Micropower volt. ref. diode (1.2V)	.79	.69	.59
193623	LM386M-1✦	SOIC-8	Low voltage audio power amp. 250mW/12V	✳	.35	.29
24125	LM386N-1*	DIP-8	Low voltage audio amp. 250mW/6V	.39	.35	.29
24133	LM386N-3*	DIP-8	Low voltage audio amp. 500mW/9V	.69	.59	.49
193631	LM393D✦	SOIC-8	Low power offset voltage dual comparator	✳	.25	.22
24281	LM393N*	DIP-8	Dual comparator	.35	.29	.25
23000	LF398N	DIP-8	Sample and hold circuit	1.49	1.29	1.19
23018	LF411CN*	DIP-8	Low offset drift JFET input op amp.	.79	.69	.59
193640	LF412CD✦	SOIC-8	Low offset drift JFET input dual op amp.	✳	1.35	1.19
23026	LF412CN*	DIP-8	Low offset drift JFET input dual op amp.	1.19	1.09	.99
33347	TL431CLP	TO-92	Program precision reference	.25	.22	.19
33355	TL494CN	DIP-16	Control. ckt. pulse width modulated	.79	.69	.59
27422	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.25	.22	.19
86799	LM555CM✦	SOIC-8	Timer (NE555D)	✳	.19	.16
126797	LMC555CN*	DIP-8	CMOS 555 timer	.49	.45	.39
34930	XRL555	DIP-8	Micro power 555 timer	.89	.79	.69
193658	LM556CM✦	SOIC-14	Dual 555 timer	✳	.35	.29
24328	LM556N*	DIP-14	Dual 555 timer (MC3456P)	.45	.39	.35
180419	HA17558	DIP-8	Dual op amp.	.29	.24	.22
27457	NE558N	DIP-16	Quad timer (NE558C)	.69	.59	.49
27473	NE564N	DIP-16	High frequency phase locked loop	1.95	1.75	1.55
24352	LM565N	DIP-14	Phased locked loop	1.49	1.29	1.19
193666	LM567CM✦	SOIC-8	Tone decoder	✳	.59	.45
24395	LM567V	DIP-8	Tone decoder	.49	.45	.39
27490	NE571N	DIP-16	Compandor, subscriber	2.75	2.49	2.25
143976	LMC660CN	DIP-14	CMOS quad operational amp.	1.55	1.39	1.25
120926	LM675T	TO-220/5	Power op amp.	6.95	6.25	5.49
24459	LM723CH	TO-5/10	Voltage regulator (2V-37V)	1.95	1.49	1.19
24467	LM723CN*	DIP-14	Voltage regulator (2V-37V)	.39	.35	.29
24483	LM725CN	DIP-8	Instrumentation op amp.	2.75	2.49	2.25
24491	LM733CN	DIP-14	Differential amp.	.99	.89	.79
24521	LM741CH	TO-5/8	Op amp.	2.25	1.95	1.75

*10 pieces included in Linear kit on page 10 **20 pieces included in Linear kit on page 10

Call for pricing on quantities over 500 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

TO-3 package	TO-5 package	TO-92 package	TO-220 package	DIP package	SOIC package
					
2 or 4-pin	3, 4, 8 or 10-pin	3-pin	3, 5 or 11-pin	8, 10, 14, 16, 18, 20 or 28-pin	8, 14 or 16-pin

Linear Series (Continued)

Package (see above)

✳ Prepackaged: please order in increments of 10 or 100

Part No.	Product No.	Pkg	Description	1	10	100
24539	LM741CN**	DIP-8	Op amp. (ULN2151)	$.25	$.22	$.19
193674	LM741CM◆	SOIC-8	Op amp.	✳	.29	.25
24563	LM747CN	DIP-14	Dual 741 op amp.	3.95	3.59	3.25
143896	LM837N	DIP-14	Low-noise quad operational amp.	1.49	1.35	1.19
192292	LM1086CTADJ	TO-220/3	1.5A low drop out positive regulator	1.65	1.19	.89
192305	LM1086CT-3.3	TO-220/3	1.5A low drop out positive regulator (3.3V)	1.65	1.19	.89
192313	LM1086CT-5.0	TO-220/3	1.5A low drop out positive regulator (5V)	1.65	1.19	.89
119706	LM1203N	DIP-28	RGB video amp system	1.49	1.39	1.19
192532	LM13700N	DIP-16	Dual op transcon amp. w/ diodes & buffer	1.65	1.19	.89
23131	LM1458N*	DIP-8	Dual op amp. (RC4558)	.25	.22	.19
193682	LM1458M◆	SOIC-8	Dual op amp.	✳	.25	.22
193691	LM1488D◆	SOIC-14	Quad line driver RS232	✳	.25	.25
23157	LM1488N*	DIP-14	Quad line driver RS232 (75188)	.29	.25	.22
16361	DS14C88N	DIP-14	Quad CMOS line driver (RS232)	.59	.49	.45
193703	LM1489D◆	SOIC-14	Quad line rec. (RS232)	✳	.25	.22
23181	LM1489N*	DIP-14	Quad line rec. RS232 (75189)	.29	.25	.22
16379	DS14C89N	DIP-14	Quad CMOS line rec. (RS232)	.59	.49	.45
23211	LM1496N	DIP-14	Balanced mod./demodulator (MC1496P)	.89	.79	.69
23270	LM1875T	TO-220/5	20-watt power audio amp.	2.25	1.95	1.75
23288	LM1877N-9	DIP-14	Dual power audio amp.	1.95	1.75	1.25
107140	LM1881N	DIP-8	Video synchronous separator	2.75	2.49	2.25
34260	ULN2001	DIP-16	Hi-volt./curr. darl. transistor array	.29	.27	.24
32897	TDA2002V	TO-220/5	8-watt audio high power amp.	1.95	1.75	1.55
34278	ULN2003A*	DIP-16	Hi-volt/curr. darl. transistor array	.39	.35	.29
193826	ULN2003AD◆	SOIC-16	Hi-volt/curr. darl. transistor array	✳	.35	.29
34294	ULN2004A	DIP-16	Hi-volt/curr. darl. trans. array (XR2204CP)	.39	.35	.29
34972	XR2206	DIP-16	Monolithic function generator	3.25	2.95	2.75
34999	XR2211	DIP-14	FSK demodulator/tone decoder	1.79	1.59	1.39
192321	LM2574HVN-ADJ	DIP-8	Simple Switcher 0.5A step down volt. reg.	3.75	2.95	2.25
192330	LM2574HVN-5.0	DIP-8	Simple Switcher 0.5A step down volt. reg.	3.75	2.95	2.25
192348	LM2574HVN-12	DIP-8	Simple Switcher 0.5A step down volt. reg.	3.75	2.95	2.25
156566	LM2574N-5	DIP-8	Step-down 5-voltage regulator	2.49	2.19	1.95
192356	LM2575N-5.0	DIP-16	Simple Switcher 1A step down volt. reg.	2.95	2.25	1.65
192364	LM2575N-12	DIP-16	Simple Switcher 1A step down volt. reg.	2.95	2.25	1.65
192372	LM2576HVT-ADJ	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192381	LM2576HVT-5.0	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192399	LM2576HVT-12	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192401	LM2576HVT-15	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192410	LM2587T-ADJ	TO-220/5	Simple Switcher 5A flyback regulator	8.25	6.49	5.25
192428	LM2594N-ADJ	DIP-8	Simple Switcher pwr. conv. 150kHz 0.5A	3.09	2.35	1.79
192436	LM2594N-5.0	DIP-8	Simple Switcher pwr. conv. 150kHz 0.5A	3.09	2.35	1.79
192444	LM2595T-ADJ	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	3.75	2.95	2.25
192452	LM2595T-5.0	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	3.75	2.95	2.25
192461	LM2595T-12	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	3.75	2.95	2.25
192479	LM2675N-5.0	DIP-8	Simple Switcher pwr. conv. high eff. 1A	5.25	3.95	3.09
39571	26LS30	DIP-16	Dual diff RS422 party line Qd RS423 line driv.	2.49	2.25	1.95
39589	26LS31	DIP-16	Quad diff line driver	.79	.69	.49
39600	26LS32	DIP-16	Quad diff line receiver	.59	.49	.35
34315	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transis. array	.69	.62	.56
23296	LM2901N	DIP-14	Quad comp.	.29	.25	.22
123625	LM2907N-8	DIP-8	Frequency to volt converter	1.95	1.75	1.55
23317	LM2907N	DIP-14	Frequency to volt converter	1.75	1.55	1.25
23350	LM2917N-8	DIP-8	Frequency to volt converter	2.95	2.75	2.49
23341	LM2917N-14	DIP-14	Frequency to volt converter	2.75	2.49	2.25
107166	LM2936Z-5	TO-92	Ultra-low quiescent current 5V reg.	1.49	1.29	1.19
192487	LM2937ET-5.0	TO-220/3	0.5A low dropout regulator (5V)	1.75	1.35	.99
107182	LM2940CT-5	TO-220/3	5V low dropout reg. (max. 45Vin)	1.29	1.19	1.09
192495	LM2940CT-12	TO-220/3	12V low dropout reg. (max 45Vin)	1.75	1.25	.95

*10 pieces included in Linear kit on page 10 **20 pieces included in Linear kit on page 10

Linear Series (Continued)

Package (see above)

✳ Prepackaged: please order in increments of 10 or 100

Part No.	Product No.	Pkg	Description	1	10	100
192508	LM2940CT-15	TO-220/3	15V low dropout reg. (max 45Vin)	$1.75	$1.25	$.95
23376	LM2941T	TO-220/5	1A low dropout adjustable regulator	1.75	1.55	1.35
121064	LM2941CT	TO-220/5	1A low dropout adjustable regulator	.99	.91	.81
107238	LM3302N	DIP-14	Low pwr. low offset volt quad cmpr.	.29	.26	.24
31974	SG3524	DIP-16	Regulating pulse width modulator	.79	.69	.59
126834	LM3876T	TO-220/11	40W high perf. audio amp. with mute	4.49	3.95	3.59
192516	LM3886T	TO-220/11	68W high perf. audio amp. with mute	5.19	3.95	2.95
24168	LM3900N	DIP-14	Quad amp. (CA3401)	.79	.69	.59
24230	LM3914N	DIP-18	Bar-graph display driver	1.95	1.75	1.55
24256	LM3915N	DIP-18	3 dB steps bar-graph disp. driver	1.75	1.55	1.35
24272	LM3916N	DIP-18	VU meter display driver	2.25	1.95	1.75
192524	LM3940IT-3.3	TO-220/3	1A low dropout reg. for 5V to 3.3V conv.	2.25	1.69	1.25
29356	RC4136N	DIP-14	Quad op amp (XR4136)	.89	.79	.69
29372	RC4151NB	DIP-8	Volt to freq. converter (XR4151)	1.29	1.19	1.09
27385	NE5532*	DIP-8	Dual low noise op amp	.59	.53	.47
193738	NE5532D◆	SOIC-8	Dual low noise op amp.	✳	.45	.39
27406	NE5534	DIP-8	Low noise op amp.	.79	.69	.59
193746	NE5534D◆	SOIC-8	Low noise op amp.	✳	.32	.29
192541	LMC6032IN	DIP-8	CMOS dual op amp.	1.09	.79	.45
51182	78L05**	TO-92	5V 100mA pos. voltage regulator	✳	.23	.21
193754	78L05ACM◆	SOIC-8	5V 100mA pos. voltage regulator	✳	.29	.25
193762	78L06ACM◆	SOIC-8	6.2V 100mA pos. voltage regulator	✳	.29	.25
192225	78L09	TO-92	9V 100mA pos. voltage regulator	✳	.19	.15
51203	78L12*	TO-92	12V 100mA pos. voltage regulator	✳	.19	.15
193771	78L12ACM◆	SOIC-8	12V 100mA pos. voltage regulator	✳	.29	.25
194642	78L15	TO-92	15V 100mA pos. voltage regulator	✳	.19	.15
193789	78L15ACM◆	SOIC-8	15V 100mA pos. voltage regulator	✳	.29	.25
194651	78L18	TO-92	18V 100mA pos. voltage regulator	.35	.28	.28
194669	78L24	TO-92	24V 100mA pos. voltage regulator	.25	.22	.19
192233	78M05	TO-220/3	5V 500mA pos. voltage regulator	.27	.24	.21
192241	78M12	TO-220/3	12V 500mA pos. voltage regulator	.27	.24	.21
192250	78M15	TO-220/3	15V 500mA pos. voltage regulator	.27	.24	.21
51246	7805K	TO-3/2	5V 1A pos. voltage reg. (LM340K-5)	1.49	1.39	1.29
51318	7812K	TO-3/2	12V 1A pos. voltage reg. (LM340K-12)	1.49	1.39	1.29
51369	7815K	TO-3/2	15V 1A pos. voltage reg. (LM340K-15)	.99	.69	.45
51262	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5)	.35	.32	.28
51297	7806T	TO-220/3	6V 1A pos. voltage reg. (LM340T-6)	.29	.25	.22
51300	7808T*	TO-220/3	8V 1A pos. voltage regulator	.29	.25	.22
51334	7812T**	TO-220/3	12V 1A pos. voltage regulator	.29	.25	.22
51377	7815T*	TO-220/3	15V 1A pos. voltage regulator	.29	.25	.22
194634	7818CT	TO-220/3	18V 1A pos. voltage regulator	.29	.25	.22
51414	7824T	TO-220/3	24V 1A pos. voltage regulator	.25	.22	.19
51238	78S40	DIP-16	1.25V-40V 1.5A switching regulator	1.49	1.25	.99
51422	79L05	TO-92	5V 100mA neg. voltage regulator	.25	.22	.19
193797	79L05ACM◆	SOIC-8	5V 100mA neg. voltage regulator	✳	.35	.25
194731	79L08	TO-92	8V 100mA neg. voltage regulator	.25	.22	.19
51431	79L12	TO-92	12V 100mA neg. voltage regulator	.28	.25	.23
194749	79L15	TO-92	15V 100mA neg. voltage regulator	.25	.22	.19
193800	79L12ACM◆	SOIC-8	12V 100mA neg. voltage regulator	✳	.35	.25
193818	79L15ACM◆	SOIC-8	15V 100mA neg. voltage regulator	✳	.35	.29
194757	79L18	TO-92	18V 100mA neg. voltage regulator	.45	.40	.36
194765	79L24	TO-92	24V 100mA neg. voltage regulator	.24	.22	.19
51457	7905T*	TO-220/3	5V 1A neg. voltage regulator	.35	.29	.25
194685	7908	TO-220/3	8V 1A neg. voltage regulator	.31	.26	.24
51481	7912T*	TO-220/3	12V 1A neg. voltage regulator	.35	.29	.25
51502	7915T*	TO-220/3	15V 1A neg. voltage regulator	.35	.29	.25
194714	7918CT	TO-220/3	18V 1A neg. voltage regulator	.35	.29	.25
51879	8038CCPD	DIP-14	Precision wave form generator	3.49	3.19	2.75

*10 pieces included in Linear kit on page 10 **20 pieces included in Linear kit on page 10

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

Linear Series (Continued)

Package (See page 9)

Part No.	Product No.	Pkg	Description	1	10	100
50876	75150	DIP-8	Dual line driver	$.95	$.85	$.77
50884	75154	DIP-16	Quad line receiver	.99	.89	.79
50930	75173	DIP-16	Quadruple differ. line receiver	1.95	1.75	1.55
50948	75174	DIP-16	Quad diff. RS422 line driver w/ 3-state out	1.09	.99	.89
50956	75175	DIP-16	Quad diff. EIA 422A/423A line rec.w/3-st.out	1.09	.99	.89
50964	75176	DIP-8	Differential bus transceiver	.79	.69	.59
16432	75183	DIP-14	Quad differential line driver (DS8830N)	1.19	1.07	.96
23157	75188	DIP-14	Quad line driver RS232 (LM1488N)	.29	.25	.22
23181	75189	DIP-14	Quad line rec. RS232 (LM1489N)	.29	.25	.22
51027	75451	DIP-8	Dual peripheral AND driver	.49	.44	.39
51035	75452	DIP-8	Dual peripheral NAND driver	.45	.39	.35
51131	75492	DIP-14	Hex digit driver (492)	6.95	6.25	5.95

Linear Series IC Cabinet Kit

$233 Value

Get a total of 480 pieces comprised of 40 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

See page 48 for kit details

Part No	Description	1	10
84988	480 pcs. Linear IC cabinet kit (40 types noted by */**)	$189.95	$169.95
130411	Refill package for 84988 (480 pcs.)	174.95	156.95

A/D & D/A Converters

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
10145	ADC0803LCN	20	8-bit A/D converter (±1/2 LSB)	$6.95	$5.95
10153	ADC0804LCN	20	8-bit A/D converter (1 LSB)	2.69	2.42
10170	ADC0808CCN	28	8-bit A/D converter with 8-ch. multiflexer	5.95	5.39
10188	ADC0809CCN	28	8-bit A/D converter with 8-ch. multiflexer	2.95	2.75
10209	ADC0817CCN	40	8-bit A/D converter with 16-ch. multiflexer	9.95	8.95
10225	ADC0820CCN	20	8-bit hi-spd. A/D conv. with track/hold	4.95	4.49
116100	ADC0831CCN	8	8-bit A/D converter w/ single differential input	1.95	1.75
14904	DAC0800LCN	16	8-bit D/A converter (±1 LSB)	1.79	1.59
14912	DAC0806LCN	16	8-bit D/A convtr. (±1 LSB) MC1408P6	1.79	1.59
14947	DAC0808LCN	16	8-bit D/A converter (MC1408P8)	1.49	1.29
14963	DAC0830LCN	20	8-bit µP D/A converter (.05% Lin.)	5.95	5.39
128186	DAC0832LCN	20	8-bit µP D/A conv. dbl. buff. (.05% Lin.)	3.95	3.59
14980	DAC1222LCN	18	12-bit D/A converter (.20% Lin.)	9.95	8.95

EPROMs

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
39909	2708	24	1k x 8 8kB 450ns (+5V, -5V, +12V)	$4.95	$4.49
33591	TMS2532A	24	4k x 8 32kB 450ns (21V)	3.95	2.87
33611	TMS2716	24	2k x 8 16kB 450ns (+5V, -5V, +12V)	2.25	1.19
40002	2716	24	2k x 8 16kB 450ns (25V)	3.25	2.95
40011	2716-1	24	2k x 8 16kB 350ns (25V)	5.95	5.39
39706	27C16	24	2k x 8 16kB 450ns (25V) CMOS	5.95	5.49
114876	2732B	24	4k x 8 32kB 450ns (12.5V)	5.95	5.39
40096	2732	24	4k x 8 32kB 450ns (25V)	5.95	5.39
40109	2732A-20	24	4k x 8 32kB 200ns (21V)	5.95	5.39
40125	2732A-25	24	4k x 8 32kB 250ns (21V)	4.95	4.49
40133	2732A-45	24	4k x 8 32kB 450ns (21V)	3.95	3.59
39765	27C32	24	4k x 8 32kB 450ns (25V) CMOS	4.95	4.49
40192	2764-20	28	8k x 8 64kB 200ns (21V)	5.25	4.75
40205	2764-25	28	8k x 8 64kB 250ns (21V)	4.95	4.49
40230	2764A-20	28	8k x 8 64kB 200ns (12.5V)	3.95	3.59
40248	2764A-25	28	8k x 8 64kB 250ns (12.5V)	3.25	2.95
105304	27C64-12	28	8k x 8 64kB 120ns (12.5V) CMOS	5.95	5.39
39829	27C64-15	28	8k x 8 64kB 150ns (12.5V) CMOS	4.95	4.49
74608	27C64-20	28	8k x 8 64kB 200ns (12.5V) CMOS	4.25	3.75
39845	27C64-25	28	8k x 8 64kB 250ns (12.5V) CMOS	3.95	3.59
39933	27128-25	28	16k x 8 128kB 250ns (21V)	5.95	4.95
39950	27128A-15	28	16k x 8 128kB 150ns (12.5V)	4.49	3.95
39968	27128A-20	28	16k x 8 128kB 200ns (12.5V)	4.25	3.75
39984	27128A-25	28	16k x 8 128kB 250ns (12.5V)	3.95	3.59
87935	27C128-12	28	16k x 8 128kB 120ns (12.5V) CMOS	3.95	3.59
39677	27C128-15	28	16k x 8 128kB 150ns (12.5V) CMOS	3.75	3.49

EPROMs (Continued)

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
101101	27C128-20	28	16k x 8 128kB 200ns (12.5V) CMOS	$3.49	$3.25
39685	27C128-25	28	16k x 8 128kB 250ns (12.5V) CMOS	3.25	2.95
40037	27256-15	28	32k x 8 256kB 150ns (12.5V)	5.49	4.95
40045	27256-20	28	32k x 8 256kB 200ns (12.5V)	3.75	2.79
40061	27256-25	28	32k x 8 256kB 250ns (12.5V)	3.49	3.19
140476	27C256-70	28	32k x 8 256kB 70ns (12.5V) CMOS	5.95	5.39
112740	27C256-10	28	32k x 8 256kB 100ns (12.5V) CMOS	5.75	5.25
65904	27C256-12	28	32k x 8 256kB 120ns (12.5V) CMOS	5.25	4.75
39714	27C256-15	28	32k x 8 256kB 150ns (12.5V) CMOS	4.95	4.49
39722	27C256-20	28	32k x 8 256kB 200ns (12.5V) CMOS	4.25	3.75
39731	27C256-25	28	32k x 8 256kB 250ns (12.5V) CMOS	4.25	3.75
40150	27512-20	28	64k x 8 512kB 200ns (12.5V)	2.95	2.75
40168	27512-25	28	64k x 8 512kB 250ns (12.5V)	2.75	2.55
175206	27C512-90	28	64k x 8 512kB 90ns (12.5V) CMOS	7.95	6.95
131959	27C512-10	28	64k x 8 512kB 100ns (12.5V) CMOS	5.75	5.25
39773	27C512-12	28	64k x 8 512kB 120ns (12.5V) CMOS	5.75	5.25
39781	27C512-15	28	64k x 8 512kB 150ns (12.5V) CMOS	5.49	5.09
39790	27C512-20	28	64k x 8 512kB 200ns (12.5V) CMOS	4.95	4.49
39802	27C512-25	28	64k x 8 512kB 250ns (12.5V) CMOS	4.75	4.39
118148	27C1024-15	40	64k x 16 1024kB 150ns (12.5V) CMOS	4.75	4.39
137701	27C010-45	32	128k x 8 1024kB 45ns (12.5V) CMOS	6.95	6.25
146149	27C010-70	32	128k x 8 1024kB 70ns (12.5V) CMOS	6.95	6.25
137699	27C010-80	32	128k x 8 1024kB 80ns (12.5V) CMOS	5.75	5.25
79231	27C010-10	32	128k x 8 1024kB 100ns (12.5V) CMOS	5.25	3.80
74624	27C010-12	32	128k x 8 1024kB 120ns (12.5V) CMOS	5.25	4.75
39651	27C010-15	32	128k x 8 1024kB 150ns (12.5V) CMOS	4.95	4.49
39669	27C010-20	32	128k x 8 1024kB 200ns (12.5V) CMOS	4.75	4.39
156267	27C020-10	32	256k x 8 2048kB 100ns (12.5V) CMOS	6.95	6.25
78852	27C020-12	32	256k x 8 2048kB 120ns (12.5V) CMOS	6.59	5.95
65699	27C020-15	32	256k x 8 2048kB 150ns (12.5V) CMOS	6.25	5.75
65681	27C020-20	32	256k x 8 2048kB 200ns (12.5V) CMOS	5.95	5.39
127933	27C4096-12	40	256k x 16 4096kB 120ns (12.5V) CMOS	6.95	5.25
111780	27C040-10	32	512k x 8 4096kB 100ns (12.5V) CMOS	7.95	5.95
102293	27C040-12	32	512k x 8 4096kB 120ns (12.5V) CMOS	8.49	7.49
85462	27C040-15	32	512k x 8 4096kB 150ns (12.5V) CMOS	7.95	6.95
156275	27C080-10	32	1M x 8 8192kB 100ns (12.5V) CMOS	16.95	15.95
140003	27C080-12	32	1M x 8 8192kB 120ns (12.5V) CMOS	15.95	14.95
156283	27C160-10	42	2M x 8 16384kB 100ns (12.5V) CMOS	23.95	21.95

See EPROM programmers on page 109

EPROM Accessories

Part No.	Product No.	Description	1	10
16820	EWC1	1.1" x 0.5" EPROM window covers (56 labels)	$1.39	$1.22
13864	CF2	Conductive foam (12" x 24" x .25") hard black	7.95	6.95
66042	DE1	UVP portable EPROM eraser, pg 109	64.95	58.95
15712	DE4	8-chip UV-EPROM eraser, pg 109	129.95	117.95

EEPROMs

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
108839	24C02P	8	256 x 8 2048-bit serial (CMOS)	$.79	$.69
108847	24C04P	8	512 x 8 4096-bit serial (CMOS)	1.19	1.09
74691	28C16A-25	24	2k x 8 16k 250ns (5V) CMOS	3.95	3.59
40416	2817A-25	28	2k x 8 16k 250ns 5V read/write	6.95	6.25
74827	28C64A-25	28	8k x 8 64k 250ns (5V) CMOS	3.95	3.59
40475	2865A	28	8k x 8 64k 250ns 5V Rd/Wr (RDY/BSY on P1)	4.95	4.49
74843	28C256-15	28	32k x 8 256k 150ns CMOS	9.95	8.95
74878	28C256-25	28	32k x 8 256k 250ns CMOS	8.95	7.95
102058	93C46	8	64 x 16 1024-bit serial (5V)	.59	.49
108855	93C56	8	128 x 16 2048-bit serial (5V)	.59	.54

PROMs

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
27844	N82S23	16	32 x 8 256-bit PROM (OC) (27S18)	$5.95	$5.39
27764	N82S123	16	32 x 8 256-bit PROM tri-state (27S19)	5.95	4.35
27772	N82S126	16	256 x 4 1024-bit PROM (OC) (27S20)	6.95	6.25
27781	N82S129	16	256 x 4 1024-bit PROM tri-state (27S21)	7.95	6.95

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

PROMs (Continued)

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
27799	N82S131	16	512 x 4 2048-bit PROM tri-state (27S13)	$6.95	$4.95
27801	N82S137	18	1024 x 4 4096-bit PROM tri-state (27S33)	4.95	4.49
27810	N82S181	24	1024 x 8 8192-bit bipolar PROM tri-state	6.95	5.95
27836	N82S191	24	2048 x 8 16,384-bit PROM tri-state	6.95	6.25
48531	74S188	16	32 x 8 Open collector (27S18)	5.95	5.39
48696	74S287	16	256 x 4 Tri-state (TBP24S10N)	4.95	4.43
48717	74S288	16	32 x 8 Tri-state (27S19/TBP18S030N)	4.95	4.49
48805	74S387	16	256 x 4 Open collector (TBP24SA10N)	4.15	3.69
48864	74S472	20	512 x 8 Tri-state high speed (MB7124)	8.95	7.95
48910	74S571	16	512 x 4 Tri-state (27S13)	6.95	4.95
48928	74S573	18	1024 x 4 Tri-state (27S33)	3.49	3.14

PALs and GALs

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
28020	PAL16L8	20	Octal 16-input AND-OR-INVERT gate array	$2.25	$1.75
28038	PAL16R8	20	Octal 16-input reg. AND-OR gate array	.49	.44
88399	16V8-10*	20	10ns .3"W	2.25	1.95
37452	16V8-15*	20	15ns .3"W	1.19	1.09
37461	16V8-25*	20	25ns .3"W	1.09	.99
88292	20V8-10**	24	10ns .3"W (slim line)	2.95	2.75
38658	20V8-15**	24	15ns .3"W (slim line)	1.39	1.23
38666	20V8-25**	24	25ns .3"W (slim line)	1.75	1.39
123801	22V10-10	24	10ns .3"W (slim line)	4.95	4.49
39159	22V10-15	24	15ns .3"W (slim line)	4.49	3.95
39167	22V10-25	24	25ns .3"W (slim line) Lattice	3.49	3.25

GALs are electrically erasable PLDs that can be used in place of numerous PALs

* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6,16RP8

** Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

PEEL Devices (CMOS)

Dual-In-Line

Programmable Electrically Erasable Logic (PEEL) devices allow for superset replacement of over 40 standard 20-pin and 24-pin PLDs (PAL, GAL, EPLD, etc.). They also offer additional architectural features so more logic can be put into every design.

Part No.	Product No.	Pins	Description	1	10
105953	18CV8P-25	20	PLD superset 12 config. I/O pins (8) 25ns	$2.25	$1.95
105996	22CV10AP-25	24	PLD superset 4/12 config. I/O pins (10) 25ns	2.59	2.35

Static RAMs

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
38738	2016-12	24	2k x 8 120ns (AM9128-12)	$1.49	$1.29
38746	2016-20	24	2k x 8 200ns (MB8128-20)	1.39	1.09
38931	2111-1	18	256 x 4 500ns (AM9111APC)	1.95	1.75
38957	2114N	18	1k x 4 450ns (9114BPC)	1.95	1.75
38973	2114N-2	18	1k x 4 200ns (9114EPC) (U214D20)	2.25	1.95
38981	2114N-2L	18	1k x 4 200ns low power	2.49	2.25
25911	MK48Z02B-15	24	2k x 8 150ns (16k) zero-power RAM	8.95	7.95
42198	5101	22	256 x 4 450ns (CMOS)	6.95	6.25
42788	6116P-1	24	2k x 8 100ns (16kB) CMOS	1.69	1.49
42796	6116P-2	24	2k x 8 120ns (16kB) CMOS	1.59	1.39
42809	6116P-3	24	2k x 8 150ns (16kB) CMOS	1.49	1.29
42737	6116LP-1	24	2k x 8 100ns (16kB) LP CMOS	2.19	1.95
42745	6116LP-2	24	2k x 8 120ns (16kB) LP CMOS	1.49	1.31
42753	6116LP-3	24	2k x 8 150ns (16kB) LP CMOS	1.95	1.45
42921	6264P-10	28	8k x 8 100ns (64kB) CMOS	2.39	2.19
42930	6264P-12	28	8k x 8 120ns (64kB) CMOS	2.29	2.09
85121	6264LP-70	28	8k x 8 70ns (64kB) LP CMOS	2.95	2.25
42884	6264LP-10	28	8k x 8 100ns (64kB) LP CMOS	2.75	2.49
42892	6264LP-12	28	8k x 8 120ns (64kB) LP CMOS	2.49	2.25
43238	6514	18	1k x 4 350ns CMOS (M58981P)	2.95	2.75
41970	43256-10L	28	32k x 8 100ns low power (NEC)	4.95	4.49
41988	43256-12L	28	32k x 8 120ns low power (NEC)	4.49	3.95
82472	62256LP-70	28	32k x 8 70ns low power CMOS	4.95	4.49
42833	62256LP-10	28	32k x 8 100ns low power CMOS	3.95	3.59
42850	62256LP-12	28	32k x 8 120ns low power CMOS	3.75	3.49

Static RAMs (Continued)

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
75037	ATT7C199P-15	28	32k x 8 15ns high speed CMOS (.3"W)	$2.75	$2.49
172101	6285128LP-50	32	128k x 8 50ns low power CMOS	9.95	8.95
131810	628128LP-70	32	128k x 8 70ns low power CMOS	7.95	6.95
103982	628128LP-85	32	128k x 8 85ns low power CMOS	7.49	6.49
157358	628512LP-70	32	512k x 8 70ns low power CMOS	17.95	15.95

Flash Memory

Dual-In-Line

Part No.	Product No.	Pins	Description	Price
185210	28F256-25	32	32k x 8 250ns (12V) CMOS	$4.95
74771	28F010-15	32	128k x 8 150ns (12V) CMOS	6.95
74835	28F020-15	32	256k x 8 150ns (12V) CMOS	6.95

Dynamic and Video RAMs

Dual-In-Line

Part No.	Product No.	Pins	Description	Price
41339	4116-15	16	16k x 1 150ns (MM5290J-1R)	$.99
191370	HM4816-4	16	16k x 1 120ns	.89
41662	4164-150	16	64k x 1 150ns (MCM6665-15)	.49
41398	41256-120	16	256k x 1 120ns (MB81256-12)	.59
41427	41256-150	16	256k x 1 150ns (P21256-15)	.69
41574	41464-10	18	64k x 4 100ns (HY53C464S-10)	1.49
41582	41464-12	18	64k x 4 120ns (MB81464-12)	1.39
42219	511000P-10	18	1M x 1 100ns (M5M4C1000-10)	1.95
93374	514256P-70	20	256k x 4 70ns (TC514256P-70)	2.25
42315	514256P-80	20	256k x 4 80ns (UPD424256-80)	2.49
128688	HM514260	SOJ	256k x 16 70ns	2.99

SIMM to SIMM Converter Card

- Converts four 30-pin SIMMs to one 72-pin SIMM
- Memory size and speed must match
- Easy-release locking clips

Part No.	Product No.	Description	1	10
157500	30/72A	Four 30-pin SIMMs to 72-pin SIMM	$7.19	$6.47

Memory Modules

Part No.	Product No.	Pins	Description	Price
189501	256KX32-60	72	256k x 32 60ns SIMM module (1MB)	$2.25
189421	256KX32-70	72	256k x 32 70ns SIMM module (1MB)	1.75
130729	JEEDO7208	72	2M x 32 60ns SIMM EDO module (8MB)	11.95
130711	JEEDO7216	72	4M x 32 60ns SIMM EDO module (16MB)	22.95
148443	JEEDO7232	72	8M x 32 60ns SIMM EDO module (32MB)	39.95
148451	JEED07264	72	16M x 32 60ns SIMM EDO module (64MB)	29.95
189413	256KX36-60	72	256k x 36 60ns SIMM module (1MB)	2.25
189430	256KX36-70	72	256k x 36 70ns SIMM module (1MB)	1.75
75133	P361000-XX-6	72	1M x 36 60ns SIMM module (4MB)	12.95
75096	P362000-XX-6	72	2M x 36 60ns SIMM module (8MB)	24.95
75184	P364000-XX-6	72	4M x 36 60ns SIMM module (16MB)	44.95
75168	P364000-XX-7	72	4M x 36 70ns SIMM module (16MB)	43.95
148460	8MBX36-60	72	8M x 36 60ns SIMM module (32MB)	79.95
148398	4MBX64SDRAM	168	4M x 64 10ns Synch. DRAM DIMM (32MB)	16.95
148401	8MBX64SDRAM	168	8M x 64 10ns Synch. DRAM DIMM (64MB)	29.95
148419	16MBX64SDRAM	168	16M x 64 10ns Synch. DRAM DIMM (128MB)	49.95
41751	421000A9B-70	30	1M x 9 70ns SIMM module (3 chips)	3.95
53698	94000S-60	30	4M x 9 60ns SIMM module (9 chips)	14.95
53701	94000S-70	30	4M x 9 70ns SIMM module (9 chips)	13.95
53719	94000S-80	30	4M x 9 80ns SIMM module	8.95
148478	16MBX9-60	30	16M x 9 60ns SIMM module (9 chips)	29.95

- We Match Any Advertised Price
- 30-day Money-Back Guarantee
- Order 24/7/365 Days a Year
- Same Business Day Shipping Until 6:00 p.m. EST

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

CPUs/MPUs

Part No.	Product No.	Pins	MHz	Description	1	10
189261	A80486SX-33	234/PGA	33	Overdrive processor	$15.95	$13.95
135571	ST486DX2-66	168/PGA	33	486 speed doubler CPU (SGS)	16.25	14.65
118421	80486DX2-66	168/PGA	33	486 speed doubler CPU (Intel)	19.95	17.95
189270	FC80486DX4-75	168/PGA	75	486DX4 CPU (Intel)	19.95	17.95
151600	AM486DX4-100	168/PGA	100	Am486DX4 CPU (AMD)	24.95	21.95
189288	Pent. PRO® 150	376/PGA	150	Pentium PRO® MPU	34.95	29.95
180793	Pent. PRO® 166	376/PGA	166	Pentium PRO® MPU	129.95	119.95
196162	KB80521EX200	376/PGA	200	Pentium PRO® 200 w/heat sink & fan	59.95	54.95
125495	Pentium® 100	296/PGA	100	Pentium® MPU	19.49	17.53
130825	Pentium® 120	296/PGA	120	Pentium® MPU	25.19	22.65
130833	Pentium® 133	296/PGA	133	Pentium® MPU	29.95	26.95
130841	Pentium® 166	296/PGA	166	Pentium® MPU	49.95	44.95
189296	Pentium® 200	387/PGA	200	Pentium® MPU	69.95	62.95
140054	Pent. MMX® 200	376/PGA	200	Pentium MMX® MPU	49.95	44.95
150501	Pent. MMX® 233	376/PGA	233	Pentium MMX® MPU	59.95	54.95
190060	Pentium® II 233	—	233	Pentium® II MPU w/ heat sink	79.95	71.95
151651	Pentium® II 300	—	300	Pentium® II MPU	99.95	89.95
183100	Pentium® II 400	—	400	Pentium® II MPU	109.95	99.95
183118	Pentium® III 600	—	600	Pentium® III MPU	159.95	144.95
196533	Pentium® III 600	Socket 370	600	Pentium® III MPU	184.95	164.95
196496	Pentium® III 700	Slot 1	700	Pentium® III MPU	164.95	149.95
196541	Pentium® III 700	Socket 370	700	Pentium® III MPU	179.95	159.95
192735	A0700MPR24B	—	700	Athlon 700 (AMD)	119.95	107.95
183134	Pentium® III 733	Slot 1	733	Pentium® III MPU	169.95	154.95
188912	Pentium® III 733	Socket 370	733	Pentium® III MPU	184.95	169.95
192751	A0750MPR24B	—	750	Athlon 750 (AMD)	129.95	116.95
196509	Pentium® III 850	Slot 1	850	Pentium® III MPU	224.95	199.95
196568	Pentium® III 850	Socket 370	850	Pentium® III MPU	214.95	194.95
196517	Pentium® III 866	Slot 1	866	Pentium® III MPU	224.95	199.95
196576	Pentium® III 866	Socket 370	866	Pentium® III MPU	214.95	194.95
189253	A0900AMT3B	—	900	Athlon 900 (AMD)	158.99	143.07
196525	Pentium® III 1000	Slot 1	1000	Pentium® III MPU	364.95	329.95
196584	Pentium® III 1000	Socket 370	1000	Pentium® III MPU	219.95	199.95
196592	Pentium® 4 1300	Socket 423	1300	Pentium® 4 MPU	169.95	152.95
196605	Pentium® 4 1400	Socket 423	1400	Pentium® 4 MPU	179.95	159.95
196613	Pentium® 4 1500	Socket 423	1500	Pentium® 4 MPU	239.95	219.95
196621	Pentium® 4 1600	Socket 423	1600	Pentium® 4 MPU	249.95	229.95
196630	Pentium® 4 1700	Socket 423	1700	Pentium® 4 MPU	279.95	259.95

Pentium® II Integrated Retention Modules

168997: Pentium® II Retention Module
- Compatible with Pentium® processors (P/N 151651, above)

169009: Pentium® II Heat Sink Support Base w/ plastic fasteners
- Compatible with Pentium® heat sinks (P/N 151298, pg 80)

Part No.	Description	1	10	25
168997	Pentium® II retention module	$1.49	$1.35	$1.19
169009	Pentium® II heat sink support	1.49	1.35	1.19

Math Coprocessors

Part No.	Product No.	Pins	Description	1	10
51941	80387-33	68PGA	33MHz math coprocessors	$15.95	$12.95
76531	80387-25SX	68PLCC	25MHz math coprocessors	27.95	24.95

V20 Chips

Dual-In-Line

Part No.	Product No.	Pins	MHz	Description	1	10
34358	UPD70108-8	40	8	V20 chip (replaces the 8088-2)	$9.95	$8.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

5000 Series and Clock Chips

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
32803	TCM5089N	16	Integrated tone dialer chip	$4.95	$4.49
26091	MM5321N	16	TV camera synchronous generator	5.95	5.39
26083	MM5314N	24	6-digit LED/incandescent readout clock chip	19.95	17.95
26171	MM5450N	40	34-segment LED display driver	4.95	4.49
26147	MM54104N	40	Speech processor chip and data	24.95	21.95
26201	MM58167AN	24	Microprocessor real time clock	4.95	4.49
29591	RTC58321B	16	Real time clock module (see page 14)	6.49	5.69
95530	RTC72421B	18	Real time clock module (see page 14)	6.49	5.69

6800 Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
43481	6800	40	8-bit MCU	$6.95	$6.25
43502	6802	40	8-bit MPU with clock and RAM (1MHz)	7.95	6.95
43529	6803	40	8-bit MCU with 128k RAM	6.95	6.25
43537	6808	40	8-bit MPU with clock	8.95	7.95
43545	6809E	40	MPU with external clock (1MHz)	3.95	3.59
43561	6810	24	128x8 static RAM (1MHz)	1.19	1.09
43596	6821	40	Peripheral interface adapter (1MHz)	3.95	3.59
43414	68B21	40	Peripheral interface adapter (2MHz)	4.95	4.49
43617	6840	28	Programmable timer (1MHz)	2.49	1.95
43633	6850	24	Asynch. comm. int. adapter (ACIA)	1.95	1.75
25304	MC68000L8	64	MPU 16-bit (8MHz)	8.95	7.95
25291	MC68000L10	64	MPU 16-bit (10MHz)	12.95	10.95
25355	MC68701	40	8-bit EPROM MPU w/ 128B RAM & I/O	15.95	13.95
25363	MC68705P3S	28	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95
25371	MC68705U3S	40	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95
116960	MC68HC11A1P	48	8-bit micro control. w/ A/D conv. (256 bytes RAM)	19.95	17.95
191863	MC68HC11E1CP2	48	8-bit micro control. w/ A/D conv. (512 bytes RAM)	15.95	13.95
108919	MC68HC705C8P	40	8-bit HCMOS MCU, 8k OTPROM, 24 I/O lines	9.95	8.95
132484	MC68HC705C8S	40	8-bit HCMOS MCU, 8k bytes, EPROM	34.95	31.95
108927	MC68HC705K1P	16	8-bit HCMOS MCU, 504 bytes, OTPROM, 10 I/O, timer	7.95	7.15

Z80 Series

Dual-In-Line

Part No.	Product No.	Pins	MHz	Description	1	10
35561	Z80	40	2.5	CPU (MK3880N/780C)	$1.39	$1.19
35570	Z80-CTC	28	2.5	Counter timer circuit (MK3882)	.69	.61
35588	Z80-PIO	40	2.5	Parallel I/O interface controller	.45	.40
35596	Z80A	40	4	CPU (MK3880N-4/780C-1)	1.75	1.55
35609	Z80A-CTC	28	4	Counter timer circuit (MK3882-4)	2.19	1.95
35625	Z80A-DART	40	4	Dual asynchronous receiver/transmitter	2.95	2.75
35641	Z80A-PIO	40	4	Parallel I/O interf. contr. (MK3881-4)	1.49	1.29
35668	Z80A-SIO/0	40	4	Serial I/O (TxCB & RxCB bond.) MK3884-4	2.19	1.95
35705	Z80B	40	6	CPU (MK3880N-6)	2.25	1.95
35781	Z84C00-4	40	4	CPU (Z84C0004PEC) CMOS	4.25	3.75
35799	Z8530	40	2	Serial communications controller	2.49	1.75
185332	Z8681	40	2	ROMless MCU	1.25	.79

See pages 128 - 130 for our complete selection of books.

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

8000 Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
51844	8031	40	CPU with 128 x 8 RAM and I/O	$2.95	$2.75
51676	80C31	40	CPU with 128 x 8 RAM and I/O (CMOS)	2.95	2.75
102197	8032	40	8-bit MCU 256 x 8 RAM	3.95	3.59
108804	80C32-1	40	8-bit MCU 256 x 8 RAM (CMOS)	3.95	3.59
51861	8035	40	MPU 8-bit	3.95	3.59
51959	8039	40	CPU single chip 8-bit (128 bytes RAM)	3.95	3.59
51692	80C39	40	CPU single chip 8-bit (128 bytes RAM) CMOS	4.49	3.15
51983	8049*	40	CPU single chip 8-bit (can use for 8039)	1.95	1.75
51991	8051AP**	40	MCU w/ 128 x 8 RAM **(ref. book P/N 161402, pg 129)**	4.95	3.59
52003	8052AH**	40	CPU 8-bit 256 bytes RAM, timer/counter and I/O	6.95	6.25
125647	80C52BASIC	40	CPU 8-bit CMOS with basic interpreter	19.95	17.95
52046	8080A	40	CPU 8-bit N-channel (1MHz)	3.95	3.59
52062	8085A	40	CPU 8-bit N-channel (3MHz)	4.49	3.95
52071	8085A-2	40	CPU 8-bit N-channel (5MHz)	4.95	4.49
51705	80C85	40	CPU 8-bit N-channel (3MHz)(CMOS)	5.95	5.39
52100	8086-2	40	CPU 16-bit (8MHz)	1.95	1.75
52142	8088	40	CPU 16-bit (8-bit data bus) 5MHz	2.49	1.59
52169	8088-2	40	CPU 16-bit (8-bit data bus) 8MHz	5.95	5.39
52290	8155	40	HMOS RAM I/O port/timer (3MHz)	4.49	3.75
52302	8155-2	40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39
52193	81C55	40	256x8 RAM I/O port/timer (CMOS) 3MHz	3.95	3.25
52329	8156	40	RAM with I/O port and timer	9.95	8.95
52468	8212	24	8-bit input/output (74S412)	5.95	5.39
52484	8216	16	Bi-directional bus driver (non-invert.)	3.95	2.89
52492	8224	16	Clock generator/driver	2.95	2.49
52513	8228	28	System contr./bus driver (74S428)	2.95	2.65
52581	8243	24	I/O expander for 48 series	4.95	4.25
52610	8250A	40	Asynchronous comm. element	4.95	4.49
52628	8250B	40	ACE (IBM PC/XT software compat.)	2.45	1.95
52644	8251	28	Prog. comm. I/O (USART)	2.95	2.25
52652	8251A	28	Prog. comm. interface (USART)	3.49	3.25
52370	82C51A	28	Prog. comm. interface (USART) CMOS	3.95	3.59
52679	8253	24	Prog. interval timer	3.95	3.59
52687	8253-5	24	Prog. interval timer (2MHz)	4.49	3.95
52388	82C53-5	24	Prog. interval timer (CMOS) 2MHz	4.95	4.49
180427	82C53-5SSOP	32	Prog. interval timer (CMOS) 2MHz (PLCC)	2.99	2.69
52708	8254	24	Prog. interval timer (UPD71054)	3.95	3.59
52716	8254-2	24	Prog. interval timer (10MHz)	5.95	5.39
52396	82C54	24	Prog. interval timer (CMOS)	3.95	3.59
52409	82C54-2	24	Prog. interval timer (CMOS) 10MHz	3.95	3.59
52724	8255	40	Prog. periph. I/O (PPI) 71055 (2MHz)	3.95	3.59
52732	8255A-5	40	Prog. periph. I/O (PPI) 5MHz	4.95	4.49
52417	82C55A	40	Prog. periph. I/O (PPI) CMOS	3.95	3.59
52425	82C55A-5	40	Prog. periph. I/O (PPI) CMOS (5MHz)	3.95	3.59
52759	8256	40	Multif. universal asynch. rec./trans.	21.95	19.95
52775	8259	28	Prog. interrupt controller (UPD71059)	1.75	1.55
52783	8259-5	28	Prog. interrupt controller (8259A-2)	1.95	1.75
52821	8275	40	Prog. CRT controller	12.95	10.95
52839	8279	40	Prog. keyboard/display interface	11.95	10.95
52847	8279-5	40	Prog. keyboard/display interface (5MHz)	12.95	11.95
52855	8282	20	Octal latch (UPD71082)	5.95	5.39
52863	8283	20	Octal latch inverts input data at outputs	.69	.62
52871	8284A	18	Clock gen. and driver (UPD71084)	3.95	3.59
52898	8286	20	Octal bus transceiver (UPD71086)	3.95	3.59
52901	8287	20	Octal bus transceiver (inverted)	9.95	8.95
52919	8288	20	Bus controller (UPD71088) 82C88-2	1.95	1.75
52951	8564	48	VIC (video interface chip for C128)	.19	.14
53006	8741	40	8-bit univ. peripheral interface (EPROM)	6.95	5.95
53014	8742	40	8-bit univ. peripheral interface	9.95	8.95
53022	8748	40	CPU 8-bit, EPROM, RAM and I/O (21V)	12.95	11.95
53031	8748H	40	CPU 8-bit, EPROM, RAM and I/O HMOS (21V)	13.95	11.95
53057	8749H	40	MPU 8-bit (EPROM version 8049)	19.95	17.95
53073	8751	40	CPU w/ 4kx8 EPROM & 128x8 RAM (3.5-8MHz)	18.95	15.95
53081	8751H	40	CPU w/ 4kx8 EPROM & 128x8 RAM (1.2-12MHz)	24.95	17.59
52978	87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)CMOS	19.95	17.95
196120	P87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)CMOS(OTP)	12.95	11.95
53090	8755	40	16k EPROM with I/O	7.95	6.95

*** 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039 ** Tie pin 31 low to bypass the internal ROM**

9000 Series

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
53663	9368	16	FND 70 driver/latch	$4.49	$3.95
10567	AM9513APC	40	System timing controller	39.95	32.95

Analog Devices

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
115158	AD558JN	16	Microprocessor compat. 8-bit DAC	$17.95	$12.75
115174	AD620AN	8	Low cost instrument amplifier	17.95	15.95
115182	AD633JN	8	Low cost analog multiplier	12.95	11.95
115318	OP27GP	8	Low noise prec. op amp (-40˚C to 80˚C)	1.95	1.75

Dallas Semiconductor

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10
114198	DS1210	8	Nonvolatile controller chip	$3.95	$3.59
114219	DS1213C	28	SmartSocket 64K/256k	13.95	12.95
133410	DS1216C	28	Smartwatch/RAM 64K/256k	22.95	20.95
114260	DS1220Y-150	24	16k nonvol. SRAM 10%pwr, 4.25V WP	11.95	10.95
114278	DS1225AB-150	28	64k nonvol. SRAM 5%pwr, 4.62V WP	12.95	10.95
114286	DS1225AD-150	28	64k nonvol. SRAM 10%pwr, 4.37V WP	11.95	10.95
114307	DS1225Y-200	28	64k nonvol. SRAM 10%pwr, 4.25V WP	13.95	12.95
177113	DS1230Y-100	28	256k nonvol. SRAM 10%pwr, 4.37V WP	17.95	12.95
114323	DS1230Y-150	28	256k nonvol. SRAM 10%pwr, 4.37V WP	17.95	15.95
114331	DS1232	8	Micromonitor chip	2.75	2.55
133444	DS1286	28	Watchdog timekeeper (50-Byte RAM)	16.95	14.95
76646	DS1287	24	Real time clock with RAM (MC146818A)	5.95	5.39
114366	DS1287A	24	Real time clock with RAM & clear	5.69	5.10
176778	DS1302	8	Trickle charge time keeping IC	2.49	2.25
114374	DS1387	24	RAMified real time clock 4kx8	9.95	8.95
114382	DS1620	8	Digital thermometer and thermostat	5.49	4.95
133452	DS12887	24	Real time clock chip	6.95	6.25
114403	DS80C320-MCG	40	High speed micro 25MHz	11.95	10.95

CMOS PIC Microcontrollers

Dual-In-Line

Part No.	Product No.	Pins	Conf.	Speed (MHz)	EPROM Bits	RAM Bytes	I/O Lines	1	10	100
145040	PIC12C508-04/P	8	OTP	4	512 x 12	25	5	$1.75	$1.49	$1.25
145058	PIC12C509/JW	8	EPROM	4	1k x 12	41	5	12.95	11.95	10.95
144258	PIC12C509-04/P	8	OTP	4	1k x 12	41	5	1.95	1.75	1.49
193455	PIC12C671-04/P	8	EPROM	4	1k x 14	128	6	2.79	2.51	2.25
193463	PIC12C672-04/P	8	OTP	4	2k x 14	128	6	2.79	2.51	2.25
128338	PIC16C54A-04/P	18	OTP	4	512 x 12	25	12	2.95	2.75	2.49
134172	PIC16C56-RC/P	18	OTP	20	1k x 12	25	12	3.75	3.49	3.25
134181	PIC16C57/JW	28	EPROM	20	2k x 12	72	20	13.95	12.95	11.95
193341	PIC16C57C-04/P	28	OTP	4	2k x 12	72	20	3.25	2.92	2.63
193375	PIC16C58B-04/P	18	OTP	4	2k x 12	73	12	2.69	2.19	1.95
193383	PIC16C622A-04/P	18	OTP	4	2k x 14	128	13	3.09	2.78	2.50
193439	PIC16F627-20/P	18	Flash	20	1k x 14	224	16	3.39	3.05	2.74
193447	PIC16F628-20/P	18	Flash	20	2k x 14	224	16	3.25	2.92	2.63
193324	PIC16C63A-20/SP	28	OTP	20	4k x 14	192	22	5.75	5.20	4.68
193359	PIC16C711-04/P	18	OTP	4	1k x 14	68	13	4.19	3.75	3.39
193391	PIC16F73-I/SP	28	Flash	20	4k x 13	192	5	5.29	4.75	4.25
145091	PIC16C74A/JW	40	EPROM	20	14k x 14	192	33	20.95	18.95	16.95
193404	PIC16F74-I/P	40	Flash	20	4k x 14	192	8	6.49	5.84	5.25
193412	PIC16F76-I/P	28	Flash	20	8k x 14	368	5	7.59	6.83	6.15
193421	PIC16F77-I/P	40	Flash	20	8k x 14	368	8	8.19	7.37	6.63
145111	PIC16F84-04/P	18	Flash	4	1k x 14	68	13	5.95	5.49	4.95
145120	PIC16F84-10/P	18	Flash	10	1k x 14	68	13	7.95	7.19	6.49
193332	PIC16F84A-20/P	18	Flash	20	1k x 14	68	13	5.95	5.35	4.82
193367	PIC16F876-20/SP	28	Flash	20	256 x 8	368	22	8.19	7.37	6.63
176882	PIC16F877-20/P	40	Flash	20	256 x 8	368	33	9.49	8.49	7.49

Encoders/Decoders for Remote Control

A series of CMOS LSIs for remote control system applications.

Part No.	Product No.	Pins	Description	1	10	100
123730	HT12E	18	Encoder 12-bit	$1.69	$1.49	$1.25
123748	HT12D	18	Decoder 8-bit address / 4-bit data	1.69	1.49	1.25
126594	HT640	24	Encoder 10-bit address / 8-bit address/data	2.95	2.75	2.49
126607	HT648L	24	Decoder 10-bit address / 8-bit latch data	2.95	2.75	2.49

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

ISD Voice Chips — Dual-In-Line

Single-Chip Voice Record/Playback Devices

10 to 240 Second Durations (28-pin DIP)

107334

- Easy-to-use single-chip voice recording and playback
- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages
- Zero-power message storage – eliminates battery backup circuits
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Automatic power-down (push-button mode) • On-chip clock source
- Playback can be edge or level-activated • 100k record cycles (typical)
- P/N 141647: 3VDC @ 30mA power • 1 µA standby current (typical)
- 100-year message retention (typical) • On-chip automatic gain control (AGC)

Part No.	Product No.	Description	1	10	50
141671	ISD1110P	Voice record/playback (10 sec.)	$4.95	$4.49	$3.95
107334	ISD1420P	Voice record/playback (20 sec.)	5.95	5.39	4.95
120643	ISD2560	Voice record/playback (60 sec.)	9.95	8.95	7.95
120660	ISD2590	Voice record/playback (90 sec.)	9.95	8.95	7.95
141655	ISD25120P	Voice record/playback (120 sec.)	9.95	8.95	7.95

Microcontrollers

80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.

Hardware: • On-chip oscillator and clock circuit
- Operates DC to 12MHz • 256 x 8-bit RAM

Software: • Full BASIC interpreter in ROM on a single chip
- "Stand-alone" software development
- Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10	100
125647	80C52BASIC	CPU 8-bit CMOS w/ BASIC interpreter	$19.95	$17.95	$15.95

PARALLAX

50MIPS SX Microcontrollers

Part No.	Parallax No.	Description	1	10
162940	SX18AC/DP	18-pin DIP package	$4.95	$4.75
162931	SX28AC/DP	28-pin DIP package	5.49	5.25

The Microcontroller Idea Book

The Idea Book introduces low end embedded micro-controller design. It provides practical designs for use with data loggers, controllers and small computer applications.

126375: • Circuits, programs and applications featuring the 8052-BASIC single chip computer • 277 pages
- Size: 7.8" x 10.5" • Weight: 1.6 lbs.

126295: Basic 52 Circuit Examples on 3.5" disk
- Software runs on MS-DOS • Weight: 1.0 lb.

For more PIC Books, see page 129

Part No.	Product No.	Description	1	10	50
126375	8052BASIC	Microcontroller Idea Book	$31.95	$28.95	$25.95
126295	SFT52	BASIC-52 Circuit Examples	6.15	5.50	4.95

E-Lab Digital Interface ICs

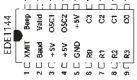
Stepper Motor Drivers

Designed to interface a logic level input byte to a stepper motor.

Part No.	Product No.	Pins	Description	1	10	50
141532	EDE1200	18	Unipolar stepper motor driver	$8.95	$7.95	$6.95
157526	EDE1204	18	Bipolar stepper motor driver	8.95	7.95	6.95

Keypad Encoder

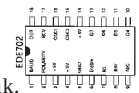
Designed to interface a matrix type 4 row x 4 column (16 key or less) keypad to a microcontroller or other host processor.



Part No.	Product No.	Pins	Description	1	10	50
171969	EDE1144	18	Keypad Encoder	$6.95	$6.25	$5.59

Serial LCD Interface

Provides a cost-effective LCD control solution for a wide variety of embedded designs. Allows nearly any-text based LCD module to be controlled via a simple one-wire data link.



Part No.	Product No.	Pins	Description	1	10	50
171951	EDE702	18	Serial LCD Interface	$8.95	$7.95	$6.95

EPSON Real Time Clock Modules — Dual-In-Line

RTC58321B: 16-Pin Clock Module

- Frequency stability: ±50ppm • Built-in 32.768kHz quartz crystal
- Addressable counter start, stop, and reset function • 12 or 24-hour format
- Automatic leap year setting • Microprocessor compatible 4-bit data bus

Part No.	Product No.	Description	1	10	100
29591	RTC58321B	16-pin clock module	$6.49	$5.69	$4.99

RTC72421B: 18-Pin Clock Module

- Frequency stability: ±50ppm • Built-in quartz crystal makes board design easy
- Direct bus-compatibility (120 nsec access time) • Interrupt masking
- 30 seconds error adjustment function

Part No.	Product No.	Description	1	10	100
95530	RTC72421B	18-pin clock module	$6.49	$5.69	$5.59

PTC Princeton Technology Controller ICs

16-Pin IR Remote Control Transmitter

Infrared remote control transmitter utilizing CMOS technology, capable of 18 functions and a total of 75 commands. Great for TV and VCR control applications.

Part No.	Product No.	Pins	Description	1	10	100
173041	PT2248	16	IR remote control transmitter	$2.49	$2.25	$1.95

24-Pin IR Remote Control Receiver

Infrared remote control receiver utilizing CMOS technology, capable of controlling 18 functions. A remote control system can be constructed using this chip and the PT2248 (P / N 173041). Code detection circuit and digital filtering prevent interference from various types of IR devices. Great for audio equipment, TV and VCR applications.

Part No.	Product No.	Pins	Description	1	10	100
173059	PT2250A	24	IR remote control receiver	$2.49	$2.25	$1.95

16-Pin Electronic Volume Controller

Volume controller IC utilizing CMOS technology specially designed for use in audio equipment. It has 2 built-in channels making it ideally suitable for mono and stereo sound applications.

Part No.	Product No.	Pins	Description	1	10	100
173024	PT2256	16	Electronic volume controller	$1.95	$1.75	$1.25

40-Pin Enhanced Digital Echo

SALE

Functionally compatible with M50195P. Input signal is converted to digital signal with A-D conversion and stored in memory. After a certain delay time, the digital signal is read out from memory and converted back into analog signal using the D-A conversion.

Part No.	Product No.	Pins	Description	1	10	100
173032	PT2395	40	Enhanced digital echo	$3.95	$3.75	$3.49

18-Pin Remote Fan Controller

SALE

A high performance electronic fan controller LSI. Speed control, off-timer, rhythm wind, sleep mode, head swing and / or light control are all built into a single chip.

Part No.	Product No.	Pins	Description	1	10	100
173016	PT2128A-C81	18	Remote fan controller	$1.09	$.99	$.89

KAE Servo and Stepper Motor Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation, Windows® example software.

146472: PIC-SERVO Motion Control Chipset for DC Motors
- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)

175901

175901: PIC-STEP Motion Control Chip for Stepper Motors
- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents • Programmable accelerations and minimum step rates

Part No.	Description	Pins	1	10	50
146472	PIC-SERVO chip set, 0.3" DIP	28/18	$34.95	$31.49	$27.95
175901	PIC-STEP chip, 0.3" DIP	28	24.95	22.45	19.95

TO-3 Heat Sink

- Traditional design
- Black anodized aluminum
- 4.8"L x 1.5"W x 1.3"H

Part No.	Product No.	Type	1	10	100
16512	DUDE4	TO-3	$2.95	$2.75	$2.49

8-Watt TO-3 Heat Sink

- Black anodized aluminum
- Space saving heat sink ideal for 0.5" centering between boards
- 1.9"L x 1.4"W x 0.5"H
- Thermal performance: 90˚C @ 8.0 watts

Wakefield SALE

Part No.	Product No.	Type	1	10	100
189835	635-5B2	TO-3	$.79	$.59	$.49

8-Watt TO-3 Heat Sink

- Uses less board space
- Black anodized aluminum
- Spacers not included
- 1.9"L x 1.4"W x 1.3"H

Part No.	Product No.	Type	1	10	100
151546	635-125B2	TO-3	$1.05	$.95	$.81

5-Watt TO-3 Heat Sink

with Mounting Screws Thermalloy

- Low profile; ideal for PC boards with 0.5" centering between boards
- Black anodized aluminum
- 2.1"L x 2.3"W x 0.4"H

Part No.	Product No.	Type	1	10	100
163820	THM6061B2	TO-3	$.35	$.31	$.28

4-Watt TO-220 Heat Sink

with Mounting Screws

- Black anodized aluminum
- Horizontal or vertical mounted
- 1.0"L x 1.6"W x 0.4"H

Thermalloy

Part No.	Product No.	Type	1	10	100	1000
163811	THM7019	TO-220	$.69	$.62	$.55	$.49

3.9-Watt TO-220 Heat Sink

- Black anodized aluminum
- 1.2"L x 1.0"W x 0.5"H

.200" tabs (3)

AAVID

Part No.	Product No.	Type	1	10	100	1000
42622	6030B	TO-220	$.33	$.30	$.27	$.24

3.6-Watt TO-220 Heat Sink

.150" tabs (2)

- Wave solderable
- Black anodized aluminum
- 1.2"L x 1.0"W x 0.5"H

Part No.	Product No.	Type	1	10	100
70771	THM6038	TO-220	$.55	$.49	$.45

3.3-Watt TO-220 Heat Sink

SALE

.123" tabs (2)

- Black anodized aluminum
- Good for high power devices
- 1.6"L x 2.0"W x 0.8"H

Part No.	Product No.	Type	1	10	100
71301	THM7024	TO-220	$.69	$.62	$.55

2-Watt TO-220 Heat Sink

- Black anodized aluminum
- 0.9"L x 1.0"W x 0.4"H

Wakefield

Part No.	Product No.	Type	1	10	100	1000
40504	291-36H	TO-220	$.89	$.79	$.69	$.59

2-Watt TO-220 Heat Sink

- Black anodized aluminum
- 0.75"L x 0.52"W x 0.38"H

Thermalloy

Part No.	Product No.	Type	1	10	100	1000
158051	THM6078	TO-220	$.39	$.35	$.29	$.25

1.9-Watt TO-220 Heat Sink

- Black anodized aluminum
- 1.2"L x 1.0"W x 0.5"H

Part No.	Product No.	Type	1	10	100
70914	THM6106	TO-220	$.49	$.45	$.39

1.6-Watt TO-220 Heat Sinks

- Use with plastic power semi-conductor devices
- Black anodized aluminum
- 0.8"L x 0.7"W x 0.4"H (P/N 70658)
- 1.2"L x 1.0"W x 0.5"H (P/N 129242)

Thermalloy

129242

Part No.	Product No.	Type	1	10	100	1000
70658	THM6073	TO-220	$.22	$.19	$.15	$.14
129242	THM6106	TO-220	.49	.45	.39	.35

TO-220 Clip-Style Heat Sink

- Light weight aluminum
- 0.8"L x 1.0"W x 0.4"H

IERC

Part No.	Product No.	Type	1	10	100	1000
107297	PSC2-2U	TO-220	$.49	$.45	$.39	$.35

8-Watt TO-218 & 7.5-Watt TO-220 Heat Sinks

AAVID

- Black anodized aluminum
- Vertical mount w/ solder tabs

167265

167265: For TO-218/TO-247
- Size: 2.0"L x 2.0"W x 0.5"H

Thermalloy

167273: For TO-220 w/ thermal clip
- Size: 2.0"L x 1.9"W x 1.0"H

167273

Part No.	Product No.	Type	1	10	100
167265	AVD592201	TO-218/247	$.44	$.39	$.35
167273	THM7023	TO-220	.49	.44	.39

5-Watt TO-218 & 3.7-Watt TO-220 Heat Sinks

with PCB Mounting Clip Thermalloy

164734

- Black anodized aluminum
- Can be mounted vertically w/ solderable mounting tabs or horizontally w/ studs

164734: For TO-220
- Size: 1.4"L x 1.8"W x 0.4"H; low profile

163846: For TO-218/TO-220
- Size: 1.7"L x 1.8"W x 0.4"H

163846

Part No.	Product No.	Type	1	10	100	1000
164734	THM6072	TO-220	$.44	$.39	$.35	$.32
163846	THM7021B	TO-218/220	.49	.44	.39	.35

2-Oz. Tube of Heat Sink Compound

Thermally loaded silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.

- Color: opaque white

Part No.	Product No.	1	10	100
167249	THM250	$8.95	$7.95	$6.95

4-Oz. Tube of Heat Sink Compound

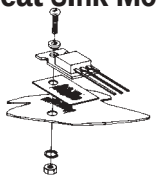
TECHSPRAY

This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave solder baths.

Part No.	Product No.	1	10
169252	1978DP	$16.95	$14.95

Heat Sink Mounting Kits

34121



34139

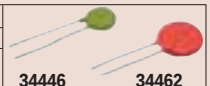
- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10	100
34121	TO-220	5-piece kit	$4.95	$4.49	$3.95
34139	TO-3	12-piece kit	4.95	4.49	3.95

LA Series Varistors (Radial Lead)

- AC power line applications
- Power supplies
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"
- High energy absorption

LA Series		Size	Max. Ratings (+85°C)			Characteristics at 25°C					
			Continuous		Transient	Max Clamping Volt.					
		Disc.	RMS Volt.	DC Volt.	Energy (10/1000µs)	@ Ip Value Current (8/20µs)					
Part No.	Product No.	Dia. (mm)	$V_{m(ac)}$ Volts	$V_{m(dc)}$ Volts	W_{tm} Joules	V Volts	Ip=2.0A Amps	Pricing 1	10	100	1000
34454	V130LA2	7	130	175	11	340	10	$.35	$.33	$.31	$.27
34446	V130LA10A	14	130	175	38	340	50	.55	.49	.45	.39
34471	V250LA20A	14	250	330	72	650	50	.58	.52	.47	.42
34462	V130LA20A	20	130	175	70	340	100	.75	.69	.59	.51

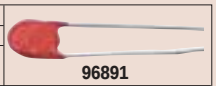


34446 34462

ZA Series Varistors (Radial Lead)

- Low DC voltage applications
- Printed circuit board designs
- UL recognized as "transient voltage surge suppressors"
- Used for highly sensitive devices
- Low transient energy
- Computer equipment
- Alarm systems

ZA Series		Size	Characteristics at 25°C								
			Varistor Voltage			Max. Clamping Voltage					
		Disc.	@ 1 mA DC Test Current			@ Ip Value Current (8/20µs)					
Part No.	Prod. No.	Dia. (mm)	Min. Volts	$V_{N(dc)}$ Volts	Max. Volts	V Volts	Ip=2.0A Amps	Pricing 1	10	100	1000
96891	V8ZA1	7	6.0	8.2	11.0	22	5	$.25	$.20	$.18	$.16
190449	V18ZA1	7	16.0	18.0	20.0	35	2.5	.29	.25	.22	.19
96920	V22ZA1	7	20.0	22.0	24.0	48	1.0	.44	.39	.35	.32
190457	V47ZA1	7	42.0	47.0	52.0	93	2.5	.44	.39	.35	.32



96891

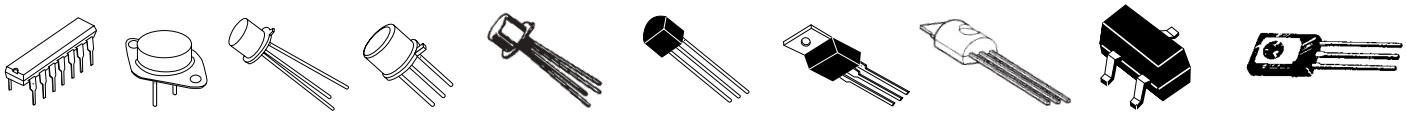
Surface Mount

Part Number Color Code
New Sale Refurbished Closeout

MOTOROLA SPRAGUE Siliconix

Call for pricing on quantities over 5000 – we carry major manufacturers.
Any transistor may be supplied in ammo style tape by special order – 1000 piece min.

BOCA Semiconductor Corporation
National Semiconductor Texas Instruments



14-pin DIP Case | TO-3 Case | TO-18 Case | TO-39 Case | TO-72 Case | TO-92 Case | TO-220 Case | TO-237 Case | SOT-23 Case | TO-126

Part Number	Product Number	Case	Description	Vceo	Min. h_{FE} @ Ic	Typ. or Max f_t (MHz)	NTE/ ECG NO.	Pricing 1	10	100	1000
26462	MPSA06	TO-92	NPN medium power	30	50 @ 10mA	125	287	✳	$.14	$.12	$.11
26489	MPSA13	TO-92	NPN power Darlington	30	5k @ 10mA	125	46	✳	.11	.09	.07
33021	TIP29A	TO-220	NPN power transistor	60	15 @ 1A	0.5	291	.55	.49	.45	.39
181825	TIP29C	TO-220	NPN epitaxial silicon transistor	100	15 @ 1A	3.0	—	.49	.43	.38	.34
33030	TIP30A	TO-220	PNP power transistor	60	15 @ 1A	0.5	292	.55	.49	.45	.39
33048	TIP31A	TO-220	NPN power transistor	60	10 @ 3A	0.5	291	.49	.39	.35	.29
33064	TIP32A	TO-220	PNP power transistor	60	10 @ 3A	0.5	292	.49	.39	.35	.29
181841	TIP32C	TO-220	PNP epitaxial silicon transistor	100	10 @ 3A	3.0	—	.75	.62	.47	.36
33081	TIP41A	TO-220	NPN power transistor	60	15 @ 3A	1	331	.59	.49	.45	.39
33101	TIP42A	TO-220	PNP power transistor	60	15 @ 3A	1	332	.59	.49	.45	.39
139580	TIP42C	TO-220	PNP epitaxial silicon transistor	100	15 @ 3A	3.0	—	.66	.59	.53	.48
120221	BPW77	TO-18	NPN photo transistor w/ lens	70	N/A	0.11	—	2.25	1.95	1.75	1.49
32977	TIP102	TO-220	NPN power Darlington	100	1k @ 3A	—	2343	.65	.55	.49	.39
32985	TIP106	TO-220	PNP power Darlington	80	1k @ 3A	—	2344	.59	.54	.49	.39
32993	TIP120	TO-220	NPN power Darlington	60	1k @ 3A	—	261	.65	.55	.45	.39
120416	TIP122	TO-220	NPN power Darlington	100	1k @ 3A	—	261	.59	.49	.45	.39
33013	TIP125	TO-220	PNP power Darlington	60	1k @ 3A	—	262	.59	.49	.45	.39
194301	2N1711	TO-39	NPN general purpose	35	100 @ 150mA	—	—	.42	.38	.34	.31
194319	2N1893	TO-39	NPN general purpose	80	40 @ 150mA	—	—	.95	.86	.77	.69
194327	2N2102	TO-39	NPN general purpose	65	40 @ 150mA	—	—	.69	.62	.56	.50
194335	2N2218A	TO-39	NPN general purpose	40	40 @ 150mA	—	—	.59	.53	.48	.43
38228	2N2219A	TO-39	NPN general purpose	40	100 @ 150mA	300	128	.59	.49	.45	.39
28628	PN2222	TO-92	NPN general purpose	30	100 @ 150mA	250	123AP	✳	.12	.10	.08
94941	PN222SM	SOT-23	NPN general purpose	30	100 @ 150mA	250	123AP	#	#	.24	.21
38236	2N2222A	TO-18	NPN general purpose	40	100 @ 150mA	250	123A	.39	.35	.29	.25
26446	MPQ2222	14-pin DIP	NPN gen. purp. small signal/quad	40	100 @ 150mA	200	2321	2.25	1.95	1.79	1.65
194351	2N2484	TO-18	NPN general purpose	60	250 @ 1mA	—	—	.58	.52	.47	.42
194343	2N2369A	TO-18	NPN general purpose	15	40 @ 10mA	—	—	.50	.45	.41	.37
194378	2N2905A	TO-39	PNP general purpose	60	100 @ 150mA	—	—	.55	.50	.45	.40
28644	PN2907	TO-92	PNP general purpose	40	100 @ 150mA	200	159	✳	.10	.08	.06
38279	2N2907A	TO-18	PNP general purpose	60	100 @ 150mA	200	129P	.29	.25	.22	.17
94959	PN2907SM✦	SOT-23	PNP genral purpose	40	100 @ 150mA	200	159	#	#	.15	.13
26454	MPQ2907	14-pin DIP	PNP gen. purp. small signal/quad	40	100 @ 150mA	200	2322	1.49	1.34	1.19	1.09
25831	MJE2955T	TO-220	PNP power transistor	60	20 @ 4A	2	332	.65	.55	.49	.39
194386	2N3019	TO-39	NPN general purpose	80	100 @ 150mA	—	—	.64	.58	.52	.46
38295	2N3053	TO-39	NPN general purpose	40	25 @ 150mA	100	129	.65	.55	.49	.39
25857	MJE3055T	TO-220	NPN power transistor	60	20 @ 4A	2	331	.65	.55	.49	.45
38308	2N3055	TO-3	NPN power bipolar, epitaxial base	60	15 @ 10A	0.01	130	.75	.67	.59	.54
194407	2N3251A	TO-18	PNP general purpose	60	100 @ 10mA	—	—	.36	.32	.29	.26
194423	2N3440	TO-39	NPN general purpose	250	40 @ 20mA	—	—	.59	.54	.49	.46
194415	2N3439	TO-39	NPN general purpose	350	40 @ 20mA	—	—	.67	.61	.56	.49
194431	2N3501	TO-39	NPN general purpose	150	100 @ 150mA	—	—	1.99	1.79	1.61	1.45
194440	2N3637	TO-39	PNP general purpose	175	100 @ 50mA	—	—	1.49	1.34	1.21	1.09
194458	2N3700	TO-18	NPN general purpose	80	100 @ 150mA	—	—	.63	.57	.47	.43
38324	2N3772	TO-3	NPN power bipolar, epitaxial base	40	15 @ 4A	0.05	181	2.29	2.06	1.85	1.67
140151	2N3773	TO-3	NPN power audio	140	15 @ 8A	----	284	2.49	2.25	1.95	1.75
38359	2N3904	TO-92	NPN general purpose	40	100 @ 10mA	300	123AP	✳	.06	.05	.04
94967	2N3904SM✦	SOT-23	NPN general purpose	40	100 @ 10mA	40	123AP	#	#	.24	.21
38375	2N3906	TO-92	PNP general purpose	40	100 @ 10mA	250	159	✳	.06	.05	.04
94975	2N3906SM✦	SOT-23	PNP general purpose	40	100 @ 10mA	250	159	#	#	.23	.21
194466	2N4033	TO-39	PNP general purpose	80	100 @ 100mA	—	—	.75	.68	.61	.55
194474	2N4036	TO-39	PNP general purpose	65	40 @ 150mA	—	—	.79	.71	.64	.58
194482	2N4235	TO-39	PNP general purpose	60	30 @ 250mA	—	—	1.39	1.25	1.13	.99
194491	2N4238	TO-39	NPN general purpose	80	30 @ 250mA	—	—	2.49	2.25	1.99	1.65
38421	2N4401	TO-92	NPN general purpose	40	100 @ 150mA	250	123AP	✳	.07	.06	.05
38447	2N4403	TO-92	PNP general purpose	40	100 @ 150mA	200	159	✳	.07	.06	.05
194520	2N5038	TO-3	NPN power transistor	90	50 @ 2A	—	—	4.59	4.13	3.72	3.35

✳ Prepackaged: please order in increments of 10, 100 or 1000 #Prepackaged: please order in increments of 100 or 1000

Call for pricing on quantities over 5000 – we carry major manufacturers.

MOTOROLA · Siliconix · SPRAGUE · National Semiconductor · Texas Instruments · BOCA Semiconductor Corporation

Transistors (Continued)

Any transistor may be supplied in ammo style tape by special order – 1000 piece min.

Part Number	Product Number	Case	Description	Vceo	Min. h_{FE} @ Ic	Typ. or Max f_t (MHz)	NTE/ ECG NO.	Pricing 1	10	100	1000
140388	2N5109	TO-39	NPN RF broad band transistor	20	40 @ 50mA	1200	278	$1.65	$1.49	$1.35	$1.19
38480	PN5179	TO-92	NPN high frequency transistor	15	25 @ 3mA	2000	229	1.19	1.09	.99	.89
140373	2N5179	TO-72	NPN low noise UHF transistor	12	25 @ 3mA	900	316	1.09	.99	.89	.79
194538	2N5320	TO-39	NPN general purpose	75	30 @ 500mA	—	—	.89	.80	.72	.65
194546	2N5415	TO-39	PNP general purpose	200	30 @ 50mA	—	—	.79	.71	.64	.58
194554	2N5416	TO-39	PNP general purpose	300	30 @ 50mA	—	—	.85	.76	.70	.63
194562	2N5679	TO-39	PNP general purpose	100	40 @ 250mA	—	—	1.19	1.07	.97	.87
194571	2N6042	TO-220	PNP power transistor	100	1000 @ 3A	—	—	.49	.45	.41	—
194589	2N6045	TO-220	NPN power transistor	100	1000 @ 3A	—	—	.99	.89	.80	.72
194597	2N6052	TO-3	PNP power transistor	100	750 @ 6A	—	—	2.95	2.66	2.39	2.15
194600	2N6059	TO-3	NPN power transistor	100	750 @ 6A	—	—	2.95	2.66	2.39	2.15
194618	2N6547	TO-3	NPN power transistor	400	12 @ 5A	—	—	5.95	5.36	4.82	4.34
194626	2N6678	TO-3	NPN power transistor	400	8 @ 15A	—	—	6.25	5.63	5.06	4.56
140134	2N6725	TO-237	NPN Darlington	50	25000 @ 200mA	100	48	.66	.63	.53	.49

J-FET Transistors

Part Number	Product Number	Case	Description	BV_{GS} (V)min @ IGuA	I_{DSS} (max) (mA) @ V_{DS}	VP (max) @ V_{DS}	NTE/ ECG No.	Pricing 1	10	100	1000
26403	MPF102	TO-92	JFET (N Channel) RF, VHF, UHF, amp	25 @ 1	20 @ 15	4 @ 0.5	451	$.39	$.35	$.29	$.25
140142	J176	TO-92	JFET (P Channel)	30 @ 1	2 @ 25	4 @ -15	—	.59	.55	.49	.45
38341	2N3823	TO-72	JFET (N Channel) VHF, amp	30 @ 1	20 @ 15	8 @ 0.5	452	.79	.69	.59	.55
38527	2N5951	TO-92	JFET (N Channel) RF, VHF, UHF, amp	30 @ 1	13 @ 15	5 @ 100	—	1.05	.95	.85	.75
119423	2N7000	TO-92	FET TMOS (N Channel)	—	1 @ 48	—	491	.35	.29	.25	.22

SAMSUNG

Darlington Power

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE} @Ic	1	10	100	1000
179282	TIP117-SAM	TO-220	PNP	-100	500 @ 2A	$.39	$.37	$.35	$.33
179240	TIP102-SAM	TO-220	NPN	100	1000 @ 3A	.69	.62	.56	.49
179258	TIP107-SAM	TO-220	PNP	-100	1000 @ 3A	.75	.69	.59	.49
179291	TIP120-SAM	TO-220	NPN	60	1000 @ 3A	.58	.52	.47	.42
179303	TIP122-SAM	TO-220	NPN	100	1000 @ 3A	.62	.56	.49	.42
179311	TIP125-SAM	TO-220	PNP	-60	1000 @ 3A	.57	.53	.48	.40
179320	TIP127-SAM	TO-220	PNP	-100	1000 @ 3A	.55	.49	.45	.41

FAIRCHILD

Small-Signal General-Purpose

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE} @Ic (mA)	1	10	100	1000
178597	2N3904-FSC	TO-92	NPN	40	100 @ 10	✻	$.09	$.08	$.07
178618	2N3906-FSC	TO-92	PNP	-40	100 @ 10	✻	.09	.08	.07
178634	2N4401-FSC	TO-92	NPN	40	100 @ 150	✻	.10	.08	.06
178651	2N4403-FSC	TO-92	PNP	-40	100 @ 150	✻	.09	.08	.07
178693	KSP55-FSC	TO-92	PNP	-60	50 @ 100	✻	.06	.05	.04
178722	KSP2222A-FSC	TO-92	NPN	40	100 @ 150	✻	.12	.10	.08
178731	KSP2907A-FSC	TO-92	PNP	-60	100 @ 150	✻	.08	.07	.06

TAITRON

Small-Signal Low-Noise

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic	1	10	100	1000
178562	2N5088	TO-92	NPN	30	300 @ 0.1mA	✻	$.09	$.08	$.07

TAITRON

Small-Signal High-Voltage

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	1	10	100	1000
178546	MPSA42	TO-92	NPN	300	40 @ 10	$.22	$.19	$.15	$.12
178554	MPSA92	TO-92	PNP	-300	40 @ 10	✻	.12	.10	.09

FAIRCHILD

Small-Signal High-Voltage

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	1	10	100	1000
178749	KSP42-FSC	TO-92	NPN	300	40 @ 10	✻	$.06	$.05	$.04
178757	KSP92-FSC	TO-92	PNP	-300	40 @ 10	✻	.06	.05	.04

✻ Prepackaged: please order in increments of 10, 100 or 1000

TAITRON

Small-Signal General-Purpose

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	1	10	100	1000
178511	PN2222A	TO-92	NPN	40	100 @ 150	✻	$.16	$.15	$.13
178520	PN2907A	TO-92	PNP	-60	100 @ 150	✻	.10	.08	.06
178538	MPSA06	TO-92	NPN	80	100 @ 100	✻	.08	.07	.06
178589	2N3904	TO-92	NPN	40	100 @ 10	✻	.08	.07	.045
178600	2N3906	TO-92	PNP	-40	100 @ 10	✻	.09	.07	.045
178626	2N4401	TO-92	NPN	40	100 @ 150	✻	.10	.08	.06
178642	2N4403	TO-92	PNP	-40	100 @ 150	✻	.10	.08	.06

SAMSUNG

Power

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic	1	10	100	1000
179346	TIP30C-SAM	TO-220	PNP	-100	15 @ 1A	$.39	$.35	$.33	$.31
179354	TIP31C-SAM	TO-220	NPN	100	10 @ 3A	.58	.52	.47	.39
179371	TIP41C-SAM	TO-220	NPN	100	15 @ 3A	.65	.53	.45	.39
179389	TIP42C-SAM	TO-220	PNP	-100	15 @ 3A	.55	.50	.45	.40

Power

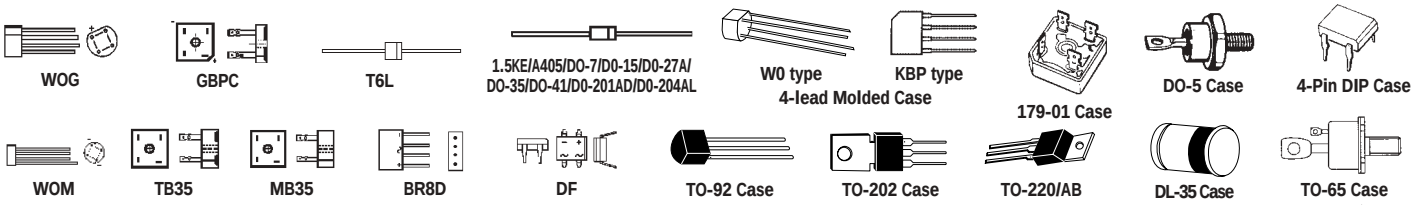
Part Number	Product Number	Case	Intrinsic Standoff ratio	Pk. Pt. Curr. (max)	Valley Pt. Curr. (min)	Pricing 1	10	100	1000
194360	2N2647	TO-18	0.68 (min)	2.0µA	8.0mA	$2.95	$2.65	$2.39	$2.19
194503	2N4870	TO-92	0.56 (min)	5.0µA	2.0mA	1.95	1.75	1.58	1.42
194511	2N4871	TO-92	0.70 (min)	5.0µA	4.0mA	1.77	1.59	1.43	1.29

N-Channel MOSFETs

Part No.	Product No.	Case	Drain Source Brkdwn Vltg.	Min. On-State DS Current	Pricing 1	10	100	1000
178669	2N7000-FSC	TO-92	60VDC	0.2A	✻	$.12	$.11	$.10
184719	IRF840	TO-220	500VDC	8.0A	1.59	1.43	1.29	1.15

Toll-Free Technical Support
Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

Part Number Color Code
New Sale Refurbished Closeout



✻ Prepackaged: please order in increments of 10, 100 or 1000

Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
177615	1N4001	DO-41	50PIV @ 1A	✻	$.05	$.04	$.03
177623	1N4002	DO-41	100PIV @ 1A	✻	.05	.04	.03
177631	1N4003	DO-41	200PIV @ 1A	✻	.04	.03	.015
177640	1N4004	DO-41	400PIV @ 1A	✻	.05	.04	.03
177658	1N4005	DO-41	600PIV @ 1A	✻	.03	.02	.015
177674	1N4007	DO-41	1000PIV @ 1A	✻	.05	.04	.03
177691	1N5401	DO-201AD	100PIV @ 3A	✻	.16	.14	.10
177703	1N5402	DO-201AD	200PIV @ 3A	✻	.08	.07	.06
177746	1N5408	DO-201AD	1000PIV @ 3A	✻	.16	.14	.10
177754	T6A05L	T6L	50PIV @ 6A	.31	.28	.25	.23
177762	T6A10L	T6L	100PIV @ 6A	.29	.26	.22	.19
177771	T6A20L	T6L	200PIV @ 6A	.45	.39	.35	.29
177797	T6A60L	T6L	600PIV @ 6A	.35	.30	.27	.24
177818	T6A100L	T6L	1000PIV @ 6A	.45	.39	.35	.29

Glass Passivated Bridge Rectifiers

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
178001	DF005M	DF	50PIV @ 1.0A	$.35	$.30	$.27	$.24
178044	DF02M	DF	200PIV @ 1.0A	.35	.30	.27	.24
178087	DF06M	DF	600PIV @ 1.0A	.20	.19	.18	.17

Glass Passivated Bridge Rectifiers

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
178095	DF06M-GSI	DF	600PIV @ 1.0A	$.24	$.22	$.20	$.19
179418	W005G-GSI	W0G	50PIV @ 1.5A	.35	.32	.29	.26
179426	W01G-GSI	W0G	100PIV @ 1.5A	.35	.32	.29	.26
179442	W04G-GSI	W0G	400PIV @ 1.5A	.22	.20	.19	.18
179477	GBPC25-01-GSI	GBPC	100PIV @ 25A	1.75	1.64	1.55	1.47
179485	GBPC25-02-GSI	GBPC	200PIV @ 25A	1.75	1.64	1.55	1.47
179493	GBPC25-04-GSI	GBPC	400PIV @ 25A	1.75	1.64	1.55	1.47
179506	GBPC25-06-GSI	GBPC	600PIV @ 25A	1.75	1.64	1.55	1.47
179514	GBPC25-08-GSI	GBPC	800PIV @ 25A	1.75	1.64	1.55	1.47
179522	GBPC25-10-GSI	GBPC	1000PIV @ 25A	2.29	2.05	1.84	1.65

Triacs

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
140425	2N6071A	5603	TO-126	200 PRV, 4A	$.69	$.59	$.49	$.45
31819	SC146B	5633	TO-220	200 PRV, 10A (2N6342)	1.25	1.12	1.01	.91
31827	SC146M	5637	TO-220	600 PRV, 10A (2N6344)	1.69	1.49	1.29	1.09
139336	Q4015L5	56020	TO-220AB	400 PRV, 15A	1.69	1.49	1.25	1.09

Silicon Controlled Rectifiers (SCR)

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
119802	2N5060	5400	TO-92	25 PRV 0.8A	$.35	$.29	$.25	$.19
120070	2N5062	5402	TO-92	100 PRV 0.8A	.49	.45	.39	.35
14736	C106B1	5455	TO-202	200 PRV 4A (2N6239)*	.59	.49	.45	.39
14752	C122B	5463	TO-220	200 PRV 8A*	1.05	.95	.85	.75
14761	C122M	5466	TO-220	600 PRV 8A*	1.35	1.15	.99	.89
140417	2N6507	5554	TO-220AB	400 PRV 25A	1.59	1.45	1.29	1.15
14859	C38M	5547	TO-65	600 PRV 35A (2N3899)	5.49	4.49	3.75	2.95

* Isolated

Stud Rectifier

SALE

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
35924	1N1188	5990	DO-5	400 PRV 35A	$3.49	$3.15	$2.89	$2.59

Full Wave Bridge Rectifiers

SALE

Part No.	Product No.	NTE/ECG	Case	Description	1	10	100	1000
103018	W02G	—	WO type	200 PRV 1A	$.49	$.45	$.39	$.35
102980	W04G	—	WO type	400 PRV 1A	.49	.45	.39	.35
102998	W06G	—	WO type	600 PRV 1A	.45	.35	.25	.19
103000	DF01M	5332	4-pin DIP	100 PRV 1A	.39	.35	.29	.22
103042	DF02M	5332	4-pin DIP	200 PRV 1A	.31	.27	.21	.18
102971	DF04M	5332	4-pin DIP	400 PRV 1A	.49	.39	.29	.25
103034	DF06M	5332	4-pin DIP	600 PRV 1A	.35	.29	.23	.19
145429	KBP02M	—	KBP type	200 PRV 1.5A	.49	.44	.39	.35
119562	KBP04M	—	KBP type	400 PRV 1.5A	.49	.45	.36	.31
25574	MDA990-3	5322	179-01	200 PRV 30A	3.95	3.49	2.95	2.49
25591	MDA990-6	5326	179-01	600 PRV 30A	4.95	3.95	3.49	2.95

Glass Passivated Ultra Fast Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
177877	UF4001	DO-41	50PIV @ 1A	✻	$.08	$.07	$.06
177885	UF4002	DO-41	100PIV @ 1A	✻	.14	.12	.10
177906	UF4004	DO-41	400PIV @ 1A	✻	.16	.15	.13
177914	UF4005	DO-41	600PIV @ 1A	✻	.08	.07	.06
177922	UF4006	DO-41	800PIV @ 1A	✻	.16	.14	.12
177931	UF4007	DO-41	1000PIV @ 1A	.19	.16	.14	.12

Schottky Barrier Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
177949	1N5817	DO-204AL	20PIV @ 1A	$.24	$.22	$.19	$.18
177957	1N5818	DO-204AL	30PIV @ 1A	.24	.20	.16	.15
177965	1N5819	DO-204AL	40PIV @ 1A	.24	.22	.19	.18
177973	1N5820	DO-201AD	20PIV @ 3A	.38	.29	.24	.21
177981	1N5821	DO-201AD	30PIV @ 3A	.38	.29	.24	.21
177990	1N5822	DO-201AD	40PIV @ 3A	.49	.45	.39	.35

Silicon Rectifiers

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
35975	1N4001	116	DO-41	50 PRV 1A	✻	$.04	$.025	$.02
76961	1N4002	116	DO-41	100 PRV 1A	✻	.04	.025	.02
76970	1N4003	116	DO-41	200 PRV 1A	✻	.04	.025	.02
35991	1N4004	116	DO-41	400 PRV 1A	✻	.04	.025	.02
76988	1N4005	116	DO-41	600 PRV 1A	✻	.04	.025	.02
76996	1N4006	125	DO-41	800 PRV 1A	✻	.04	.03	.02
36011	1N4007	125	DO-41	1000 PRV 1A	✻	.05	.03	.025
77075	1N5400	5800	DO-27A	50 PRV 3A	✻	.15	.13	.11
36249	1N5401	5801	DO-27A	100 PRV 3A	✻	.15	.12	.07
77083	1N5402	5802	DO-27A	200 PRV 3A	✻	.10	.09	.08
36265	1N5404	5804	DO-27A	400 PRV 3A	✻	.10	.09	.08
36273	1N5408	5809	DO-27A	1000 PRV 3A	✻	.15	.11	.08

Fast Recovery Rectifiers

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
177826	1N4933	A-405	50PIV @ 1A	✻	$.03	$.02	$.01
177834	1N4934	A-405	100PIV @ 1A	✻	.07	.05	.03
177842	1N4935	A-405	200PIV @ 1A	✻	.03	.02	.01
177851	1N4936	A-405	400PIV @ 1A	✻	.04	.03	.02
177869	1N4937	A-405	600PIV @ 1A	✻	.06	.05	.04

Bidirectional Transient Voltage Suppressor

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
103106	1.5KE15CA	4921	1.5KE	15V@1mA 1500W	$.59	$.49	$.39	$.29

✳ Prepackaged: please order in increments of 10, 100 or 1000

Bridge Rectifiers

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
178124	W005M	WOM	50PIV @ 1.5A	$.49	$.45	$.39	$.29
178132	W01M	WOM	100PIV @ 1.5A	.49	.45	.39	.29
178141	W02M	WOM	200PIV @ 1.5A	.49	.45	.39	.29
178159	W04M	WOM	400PIV @ 1.5A	.49	.45	.39	.29
178167	W06M	WOM	600PIV @ 1.5A	.29	.27	.24	.22
178175	W08M	WOM	800PIV @ 1.5A	.49	.45	.39	.29
178183	BR805D	BR8D	50PIV @ 2A	.59	.53	.47	.43
178191	BR81D	BR8D	100PIV @ 2A	.55	.48	.44	.39
178204	BR82D	BR8D	200PIV @ 2A	.85	.77	.69	.62
178239	BR88D	BR8D	800PIV @ 2A	.25	.22	.20	.19
178247	BR810D	BR8D	1000PIV @ 2A	.69	.59	.49	.39
178255	MB2505	MB35	50PIV @ 25A	2.79	2.51	2.26	1.95
178263	MB251	MB35	100PIV @ 25A	2.79	2.53	2.28	2.05
178271	MB252	MB35	200PIV @ 25A	3.75	3.35	2.99	2.69
178280	MB254	MB35	400PIV @ 25A	3.75	3.35	2.99	2.69
178298	MB256	MB35	600PIV @ 25A	3.59	3.19	2.89	2.59
178327	TB251	TB35	100PIV @ 25A	1.25	1.16	1.10	1.04
178335	TB252	TB35	200PIV @ 25A	2.79	2.51	2.26	1.95
178343	TB254	TB35	400PIV @ 25A	1.29	1.20	1.14	1.08
178360	TB258	TB35	800PIV @ 25A	2.25	1.99	1.79	1.61
178378	TB2510	TB35	1000PIV @ 25A	3.75	3.35	2.99	2.69
178386	MB3505	MB35	50PIV @ 35A	1.35	1.26	1.19	1.13
178423	MB356	MB35	600PIV @ 35A	1.45	1.36	1.29	1.22
178431	MB358	MB35	800PIV @ 35A	2.95	2.74	2.47	2.22
178440	TB3505	TB35	50PIV @ 35A	1.35	1.26	1.19	1.13
178458	TB351	TB35	100PIV @ 35A	4.39	3.95	3.56	3.19
178466	TB352	TB35	200PIV @ 35A	2.35	2.09	1.88	1.69
178491	TB358	TB35	800PIV @ 35A	2.45	2.16	1.94	1.74
178503	TB3510	TB35	1000PIV @ 35A	3.29	2.99	2.65	2.29

Transient Voltage Suppressors

SALE

CA: Bidirectional A: Unidirectional

Part No.	Product No.	Case	Min Brkdwn Vltg. (Vbr)	Stand-off Voltage	Pricing 1	10	100	1000
179549	1.5KE16A-GSI	1.5KE	15.2	13.6	$.49	$.44	$.40	$.36
179557	1.5KE18A-GSI	1.5KE	17.1	15.3	.49	.42	.37	.33
179565	1.5KE22A-GSI	1.5KE	20.9	18.8	.49	.45	.40	.35
179573	1.5KE250CA-GSI	1.5KE	237	214	.59	.54	.51	.48
179581	1.5KE30AGSI	1.5KE	28.5	25.6	.49	.45	.39	.35
179590	1.5KE33A-GSI	1.5KE	31.4	28.2	.59	.45	.39	.35
179602	1.5KE350A-GSI	1.5KE	333	300	.45	.40	.38	.36
179629	1.5KE43CA-GSI	1.5KE	40.9	36.8	.59	.45	.39	.35
179645	1.5KE51CA-GSI	1.5KE	48.5	43.6	.69	.59	.49	.39
179653	1.5KE6.8A-GSI	1.5KE	6.45	5.8	.49	.45	.39	.35
179661	1.5KE6.8CA-GSI	1.5KE	6.45	5.8	.69	.59	.49	.39
179696	P6KE13A-GSI	DO-15	12.4	11.1	.20	.19	.18	.17
179717	P6KE15CA-GSI	DO-15	14.3	12.8	.30	.27	.24	.21
179725	P6KE16A-GSI	DO-15	15.2	13.6	.29	.25	.22	.19
179733	P6KE16CA-GSI	DO-15	15.2	13.3	.32	.29	.25	.22
179741	P6KE18A-GSI	DO-15	17.1	15.3	.29	.25	.22	.19
185463	P6KE180A-GSI	DO-15	171	154	✳	.10	.09	.08
179750	P6KE200A-GSI	DO-15	190	171	.20	.19	.18	.17
179768	P6KE200CA-GSI	DO-15	190	171	.35	.29	.25	.22
179784	P6KE27A-GSI	DO-15	25.7	23.1	.20	.19	.18	.17
179792	P6KE33CA-GSI	DO-15	31.4	28.2	.35	.29	.26	.23
179805	P6KE39A-GSI	DO-15	37.1	33.3	.20	.19	.18	.17
179813	P6KE43CA-GSI	DO-15	40.9	36.8	.30	.27	.24	.21
179821	P6KE6.8A-GSI	DO-15	6.45	5.8	.29	.25	.22	.19
179830	P6KE6.8CA-GSI	DO-15	6.45	5.8	.30	.27	.24	.21
179848	P6KE82A-GSI	DO-15	77.9	70.1	.29	.25	.22	.19
179856	P6KE9.1A-GSI	DO-15	8.65	7.78	.29	.25	.22	.19

✦ Surface Mount

Surface Mount Diode

Part No.	Product No.	NTE/ECG	Case	Description	1	100	1000
94908	1N4148SM✦	—	DL-35	75 PRV @ 50µa, 10mA (1N 914)	✳	$.04	$.035

Zener Diodes (DO-35 Case)

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
179004	1N5225B-VSHY	DO-35	3.0V @ 20mA	✳	$.09	$.06	$.035
179012	1N5226B-VSHY	DO-35	3.3V @ 20mA	✳	.08	.06	.035
179021	1N5229B-VSHY	DO-35	4.3V @ 20mA	✳	.08	.06	.035
179039	1N5230B-VSHY	DO-35	4.7V @ 20mA	✳	.08	.06	.035
179047	1N5231B-VSHY	DO-35	5.1V @ 20mA	✳	.08	.06	.035
179055	1N5232B-VSHY	DO-35	5.6V @ 20mA	✳	.07	.05	.035
179063	1N5234B-VSHY	DO-35	6.2V @ 20mA	✳	.07	.05	.035
179071	1N5239B-VSHY	DO-35	9.1V @ 20mA	✳	.05	.045	.035
179080	1N5241B-VSHY	DO-35	11V @ 20mA	✳	.05	.045	.035
179098	1N5242B-VSHY	DO-35	12V @ 20mA	✳	.07	.05	.035
179101	1N5245B-VSHY	DO-35	15V @ 8.5mA	✳	.07	.05	.035
179119	1N5246B-VSHY	DO-35	16V @ 7.8mA	✳	.04	.03	.02
179127	1N5248B-VSHY	DO-35	18V @ 7.0mA	✳	.04	.03	.02
179135	1N5250B-VSHY	DO-35	20V @ 6.2mA	✳	.04	.03	.02
179151	1N5257B-VSHY	DO-35	33V @ 3.8mA	✳	.04	.03	.02
179178	1N5260B-VSHY	DO-35	43V @ 3.0mA	✳	.04	.03	.02
179186	1N5262B-VSHY	DO-35	51V @ 2.5mA	✳	.04	.03	.02
179194	1N5267B-VSHY	DO-35	75V @ 1.7mA	✳	.04	.03	.02

Zener Diodes (DO-41 case)

SALE

Part No.	Product No.	Case	Description	1	100	500	1000
178765	1N4730A-VSHY	DO-41	3.9V @ 64mA	$.13	$.10	$.08	$.05
178773	1N4732A-VSHY	DO-41	4.7V @ 53mA	.13	.10	.08	.05
178781	1N4733A-VSHY	DO-41	5.1V @ 49mA	.13	.10	.08	.05
178790	1N4734A-VSHY	DO-41	5.6V @ 45mA	.13	.10	.08	.05
178802	1N4735A-VSHY	DO-41	6.2V @ 41mA	.13	.10	.08	.05
178811	1N4737A-VSHY	DO-41	7.5V @ 34mA	.13	.10	.08	.05
178829	1N4738A-VSHY	DO-41	8.2V @ 31mA	.13	.10	.08	.05
178837	1N4739A-VSHY	DO-41	9.1V @ 28mA	.13	.10	.08	.05
178845	1N4740A-VSHY	DO-41	10V @ 25mA	.13	.10	.08	.05
178853	1N4742A-VSHY	DO-41	12V @ 21mA	.13	.10	.08	.05
178861	1N4744A-VSHY	DO-41	15V @ 17mA	.13	.10	.08	.05
178870	1N4746A-VSHY	DO-41	18V @ 14mA	.13	.10	.08	.05
178888	1N4747A-VSHY	DO-41	20V @ 12.5mA	.13	.10	.08	.05
178896	1N4748A-VSHY	DO-41	22V @ 11.5mA	.13	.10	.08	.05
178909	1N4749A-VSHY	DO-41	24V @ 10.5mA	.13	.10	.08	.05
178917	1N4750A-VSHY	DO-41	27V @ 9.5mA	.13	.10	.08	.05
178925	1N4751A-VSHY	DO-41	30V @ 8.5mA	.13	.10	.08	.05
178933	1N4752A-VSHY	DO-41	33V @ 7.5mA	.13	.10	.08	.05
178941	1N4753A-VSHY	DO-41	36V @ 7.0mA	.13	.10	.08	.05
178950	1N4755A-VSHY	DO-41	43V @ 6.0mA	.13	.10	.08	.05
178968	1N4756A-VSHY	DO-41	47V @ 5.5mA	.13	.10	.08	.05
178976	1N4758A-VSHY	DO-41	56V @ 4.5mA	.13	.10	.08	.05
178984	1N4759A-VSHY	DO-41	62V @ 4.0mA	.13	.10	.08	.05
178992	1N4761A-VSHY	DO-41	75V @ 3.3mA	.13	.10	.08	.05

Zener Diodes

Part No.	Prod. No.	NTE/ECG	Case	Description	1	100	500	1000
36290	1N751	5010A	DO-35	5.1V @ 20mA .5 W	$.12	$.09	$.07	$.04
36089	1N4732	5096	DO-41	4.7V @ 53mA 1 W	.12	.09	.07	.04
36097	1N4733	135A	DO-41	5.1V @ 49mA 1 W	.12	.09	.07	.04
36118	1N4734	136A	DO-41	5.6V @ 45mA 1 W	.12	.09	.07	.04
36126	1N4735	137A	DO-41	6.2V @ 41mA 1 W	.12	.09	.07	.04
36169	1N4742	142A	DO-41	12.0V @ 21mA 1 W	.12	.09	.07	.04
36185	1N4744	145A	DO-41	15.0V @ 17mA 1 W	.12	.09	.07	.04
183450	1N4750A	146A	DO-41	27.0V @ 9.5mA 1 W	.12	.09	.07	.04

General Purpose Diode

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
35941	1N270	109	DO-7	80 PRV, 200mA	$.75	$.69	$.59	$.49

General Purpose Diodes

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
179231	BAV21-VSHY	DO-35	250 PRV @ 200mA	✳	$.045	$.04	$.035
179223	BAV20-VSHY	DO-35	200 PRV @ 200mA	✳	.03	.02	.01

Surface Mount

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 5000 – we carry major manufacturers.
Any Diode can be special order in ammo-style tape – 1000 piece minimum
✳ Prepackaged: please order in increments of 10, 100 or 1000
Taped-ammo style: please order in increments of 1000

151247

Switching Diodes

DO-7/35/41 Case

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
35967	1N3600	519	DO-35	50 PRV @ 100µa, 200mA	✳	$.12	$.10	$.08
36038	1N4148	519	DO-35	75 PRV @ 50µa, 10mA	✳	.04	.03	.02
151247	1N4148T	519	DO-35	75 PRV @ 50µa, 10mA	#	#	#	.02
36311	1N914	519	DO-35	75 PRV @ 5µa, 10mA	✳	.05	.04	.03

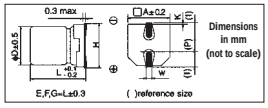
Switching Diodes

Part No.	Product No.	Case	Description	1	10	100	1000
179207	1N914-VSHY	DO-35	100 PRV @ 25mA	✳	$.06	$.05	$.04
179215	1N4148-VSHY	DO-35	100 PRV @ 25mA	✳	.14	.13	.11

Surface Mount Aluminum Electrolytic Capacitors

193009
Tape
and Reel

193009



Operating temperature range		-40˚C to +85˚C
Leakage Current (20˚C)	after 2 minutes	1≤ .01CV or 3µA

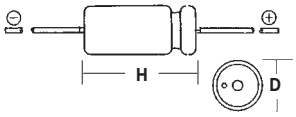
Surface Mount Aluminum Electrolytic Capacitors Cross Reference

Panasonic: VS Series ✳ **Prepackaged: please order in increments of 10, 100 or 500**

Part No.	Product No.	Value (µF)	Voltage	Dia. (mm)	1	10	100	500
193228	SE1/50◆	1	50	4.0	✳	$.27	$.24	$.21
193236	SE2.2/50◆	2.2	50	4.0	✳	.39	.35	.30
193244	SE3.3/50◆	3.3	50	4.0	✳	.25	.22	.20
193076	SE427/25◆	4.7	25	4.0	✳	.31	.28	.24
193252	SE4.7/50◆	4.7	50	5.0	✳	.19	.17	.15
192997	SE10/16◆	10	16	4.0	✳	.29	.26	.23
193084	SE10/25◆	10	25	5.0	✳	.33	.29	.24
193164	SE10/35◆	10	35	5.0	✳	.19	.17	.15
193261	SE10/50◆	10	50	6.3	✳	.22	.19	.17
192891	SE22/6.3◆	22	6.3	4.0	✳	.32	.29	.24
193009	SE22/16◆	22	16	5.0	✳	.29	.26	.23
193092	SE22/25◆	22	25	6.3	✳	.39	.35	.28
193172	SE22/35◆	22	35	6.3	✳	.22	.19	.17
193279	SE22/50◆	22	50	6.3	✳	.30	.27	.23
193017	SE33/16◆	33	16	5.0	✳	.33	.29	.26
193105	SE33/25◆	33	25	6.3	✳	.22	.19	.17
193181	SE33/35◆	33	35	8.0	✳	.29	.26	.23
193287	SE33/50◆	33	50	8.0	✳	.37	.33	.28
193025	SE47/16◆	47	16	6.3	✳	.33	.29	.26
193113	SE47/25◆	47	25	6.3	✳	.39	.35	.30
193199	SE47/35◆	47	35	6.3	✳	.29	.26	.23
193295	SE47/50◆	47	50	10.0	✳	.39	.36	.28
192903	SE100/6.3◆	100	6.3	6.3	✳	.39	.35	.28
192954	SE100/10◆	100	10	6.3	✳	.22	.19	.17
193033	SE100/16◆	100	16	8.0	✳	.45	.41	.34
193121	SE100/25◆	100	25	8.0	✳	.37	.33	.28
193201	SE100/35◆	100	35	10.0	✳	.39	.35	.29
193308	SE100/50◆	100	50	10.0	✳	.54	.48	.44
192911	SE220/6.3◆	220	6.3	6.3	✳	.29	.26	.23
192962	SE220/10◆	220	10	8.0	✳	.37	.33	.28
193041	SE220/16◆	220	16	8.0	✳	.36	.32	.28
193130	SE220/25◆	220	25	10.0	✳	.64	.57	.51
193210	SE220/35◆	220	35	8.0	✳	.55	.49	.44
193316	SE220/50◆	220	50	10.0	✳	.69	.62	.55
193050	SE330/16◆	330	16	10.0	✳	.63	.29	.26
193148	SE330/25◆	330	25	8.0	✳	.55	.49	.45
192920	SE470/6.3◆	470	6.3	8.0	✳	.69	.62	.56
192971	SE470/10◆	470	10	10.0	✳	.79	.71	.63
193068	SE470/16◆	470	16	10.0	✳	.54	.48	.43
193156	SE470/25◆	470	25	10.0	✳	.69	.62	.55
192938	SE1000/6.3◆	1000	6.3	10.0	✳	.55	.49	.44
192989	SE1000/10◆	1000	10	10.0	✳	.89	.80	.72
192946	SE1500/6.3◆	1500	6.3	10.0	✳	.69	.62	.55

Aluminum Axial-Lead Electrolytic Capacitors

General purpose low voltage 85°C



Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2µA, whichever is greater

AXIAL CAPACITOR CROSS REFERENCES

Elna: RE2; **IC:** RAR; **Marcon:** SEM; **Nichicon:** LB/VX; **Rubycon:** TWSS;
Sprague: 501D/513D; **UCC:** SME; **Panasonic:** SU

NEW

* Capacitor dimensions may vary

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

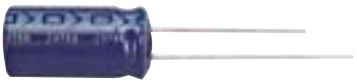
Part Number	Product Number	Value (µF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
10866	A1/50	1	50V	5x13	✳	$.15	$.10	$.075
199128	A2.2J/16	2.2	16V	6x13	✳	.20	.14	.10
93569	A2.2/50	2.2	50V	6x13	✳	.19	.15	.11
199136	A3.3J/16	3.3	16V	6x12	✳	.20	.14	.10
199419	A3.3J/50	3.3	50V	6x12	✳	.20	.14	.10
11076	A4.7/50	4.7	50V	6x13	✳	.18	.13	.11
199427	A6.8J/50	6.8	50V	6x12	✳	.20	.20	.14
199144	A10J/16	10	16V	6x12	✳	.20	.14	.10
199259	A10J/25	10	25V	5x12	✳	.20	.14	.10
93577	A10/35	10	35V	6x13	✳	.15	.12	.09
10882	A10/50	10	50V	6x12	✳	.15	.12	.09
158836	A10A63	10	63V	6x13	✳	.27	.24	.22
199152	A22J/16	22	16V	6x12	✳	.20	.14	.10
199267	A22J/25	22	25V	6x12	✳	.20	.14	.10
10997	A22/50	22	50V	6x12	✳	.15	.12	.09
199161	A33J/16	33	16V	6x13	✳	.20	.14	.10
199275	A33J/25	33	25V	6.3x12	✳	.20	.14	.10
199347	A33J/35	33	35V	6.3x16	✳	.20	.14	.10
199435	A33J/50	33	50V	6.3x16	✳	.20	.14	.10
199179	A47J/16	47	16V	6.3x12	✳	.20	.14	.10
135319	A47/25	47	25V	8x16	✳	.19	.14	.12
199355	A47J/35	47	35V	6.3x16	✳	.20	.14	.10
11105	A47/50	47	50V	8x16	✳	.19	.13	.09
147221	A68/25	68	25V	8x17	✳	.29	.26	.24
199443	A68J/50	68	50V	8x15	.27	.23	.19	.14
199187	A100J/16	100	16V	6.3x16	.28	.24	.20	.15
199283	A100J/25	100	25V	8x16	.29	.25	.21	.15
93551	A100/35	100	35V	8x16	✳	.19	.15	.10
10911	A100/50	100	50V	8x20	✳	.25	.19	.15
199195	A220J16	220	16V	8x16	.28	.24	.20	.15
199291	A220J/25	220	25V	8x16	.29	.25	.21	.15
199363	A220J/35	220	35V	10x17	.35	.28	.25	.19
11017	A220/50	220	50V	10x20	.29	.25	.19	.15
199208	A330J/16	330	16V	8x16	.28	.24	.20	.15
199304	A330J/25	330	25V	10x17	.35	.28	.25	.19
199371	A330J/35	330	35V	10x17	.45	.37	.33	.28
199451	A330J/50	330	50V	13x22	.51	.44	.40	.34
199216	A470J/16	470	16V	8x16	.35	.28	.25	.19
199312	A470J/25	470	25V	10x17	.45	.37	.33	.28
199380	A470J/35	470	35V	10x21	.51	.41	.35	.31
11121	A470/50	470	50V	13x31	.59	.49	.45	.39
199460	A680J/50	680	50V	16x25	.85	.75	.57	.45
93631	A1000/16	1000	16V	13x27	.61	.49	.42	.39
10954	A1000/25	1000	25V	13x31	.59	.49	.39	.29
93649	A1000/35	1000	35V	13x26	.79	.71	.60	.54
147256	A1000/50	1000	50V	16x31	.69	.59	.55	.49
11033	A2200/16	2200	16V	16x40	.79	.71	.65	.59
199321	A2200J/25	2200	25V	16x28	1.11	.90	.78	.59
93657	A2200/35	2200	35V	16x30	1.09	.99	.89	.75
199478	A2200J/50	2200	50V	18x42	2.55	2.10	1.95	1.75
199224	A3300J/16	3300	16V	16x26	1.19	.99	.85	.67
93665	A3300/25	3300	25V	16x32	.89	.79	.69	.59

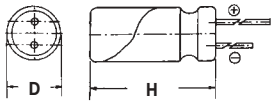
Aluminum Axial-Lead Electrolytic Capacitors
(continued)

NEW

Part Number	Product Number	Value (µF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
199398	A3300J/35	3300	35V	18x37	$3.39	$2.95	$2.29	$2.10
199486	A3300J/50	3300	50V	22x43	4.29	3.29	3.15	2.95
199232	A4700J/16	4700	16V	16x30	2.10	1.75	1.45	1.30
93673	A4700/25	4700	25V	22x39	1.49	1.25	.99	.75
199401	A4700J/35	4700	35V	18x40	4.85	3.99	3.35	2.99
158810	A4700A50	4700	50V	25x43	2.49	2.25	1.95	1.75
199241	A6800J/16	6800	16V	16x33	3.19	3.10	2.39	2.25
199339	A6800J/25	6800	25V	18x40	4.75	3.95	3.59	3.29
93681	A10000/16	10000	16V	22x51	1.95	1.75	1.49	1.25

Aluminum Radial-Lead Electrolytic Capacitors
General purpose low voltage 85°C (A); HT Type 105°C (B) ±20%





Operating temperature range		-40°C to +85°C (A); -40°C to +105°C (B)
Leakage Current (20°C)	After 1 min.	0.03CV or 4µA, whichever is greater
	After 2 min.	0.01CV or 3µA, whichever is greater

RADIAL CAPACITOR CROSS REFERENCES

Elna: RC2/RE2; **IC:** RAR/RSS; **Marcon:** SEM/SSM; **Nichicon:** LB/VX/USA/SR/SA; **Rubycon:** MS7/TWSS; **Sprague:** 501D/513D; **UCC:** SME/SRE/SRA/SRG; **Panasonic:** KA/KS/SU

* Capacitor dimensions may vary

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

NEW

Part Number	Product Number	Op. Temp	Value (µF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
158481	R0.47B100	B	0.47	100V	5x11.5	✻	$.065	$.035	$.03
94160	5R1/50	A	1	50V	4x5	✻	.13	.10	.08
29831	R1/50	A	1	50V	5x11	✻	.07	.05	.035
158490	R1B100	B	1	100V	5x11.5	✻	.09	.07	.05
93729	R2.2/50	A	2.2	50V	5x11	✻	.07	.05	.035
199021	R2.2J/100	A	2.2	100V	5x11	✻	.12	.08	.05
135183	R3.3/50	A	3.3	50V	5x11	✻	.07	.05	.035
199030	R3.3J/100	A	3.3	100V	5x11	✻	.11	.08	.05
31000	R4.7/50	A	4.7	50V	5x11	✻	.07	.05	.035
158511	R4.7B100	B	4.7	100V	5x11.5	✻	.06	.05	.04
198838	R10J/16	A	10	16V	5x11	✻	.10	.07	.04
94211	5R10/25	A	10	25V	4x5	✻	.14	.11	.09
94220	5R10/35	A	10	35V	5x5	✻	.15	.11	.07
94369	7R10/35	A	10	35V	5x7	✻	.10	.06	.04
29891	R10/50	A	10	50V	5x10	✻	.06	.05	.04
199048	R10J/100	A	10	100V	6.3x11	.25	.15	.10	.07
158529	R10B100	B	10	100V	6x11.5	✻	.08	.05	.045
158326	R22B35	B	22	35V	5x11.5	✻	.07	.05	.035
198846	R22J/16	A	22	16V	5x11	✻	.13	.06	.04
189918	R22J/25	A	22	25V	5x11	✻	.10	.07	.04
198942	R22J/35	A	22	35V	5x11	✻	.10	.07	.04
93737	R22/50	A	22	50V	6x11	✻	.06	.05	.035
199056	R22J/100	A	22	100V	6.3/11	.30	.21	.14	.09
198854	R33J/16	A	33	16V	5x11	✻	.09	.06	.04
198926	R33J/25	A	33	25V	5x11	✻	.10	.07	.04
93745	R33/50	A	33	50V	6x11	✻	.07	.06	.04
199064	R33J/100	A	33	100V	8x11.5	.35	.25	.19	.11
135301	R47/10	A	47	10V	5x12	✻	.045	.04	.035
198862	R47J/16	A	47	16V	5x11	✻	.09	.06	.04
93753	R47/25	A	47	25V	6x7	✻	.05	.04	.03
198951	R47J/35	A	47	35V	5x10	✻	.12	.08	.05
199072	R47J/100	A	47	100V	10x12.5	.35	.26	.18	.13
158246	R47B25	B	47	25V	5x11.5	✻	.06	.05	.035
31114	R47/50	A	47	50V	6x11	✻	.07	.06	.045
94289	5R100/16	A	100	16V	6x5	✻	.15	.12	.09
94431	7R100/16	A	100	16V	6x7	✻	.12	.09	.07

Aluminum Radial-Lead Electrolytic Capacitors
(continued)

NEW

Part Number	Product Number	Op. Temp	Value (µF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
93761	R100/25	A	100	25V	6x11	✻	$.09	$.07	$.05
198969	R100J/35	A	100	35V	6.3x11	✻	.17	.11	.07
29962	R100/50	A	100	50V	8x11	✻	.07	.06	.05
158393	R100B50	B	100	50V	8x12	✻	.11	.09	.07
135124	7R220/10	A	220	10V	8x11	✻	.05	.04	.03
198871	R220J/16	A	220	16V	6.3x11	.25	.16	.11	.07
30496	R220/25	A	220	25V	8x11	✻	.09	.07	.05
158262	R220B25	B	220	25V	8x12	✻	.12	.09	.07
93770	R220/35	A	220	35V	10x16	✻	.12	.09	.08
93778	R220/50	A	220	50V	10x20	✻	.15	.12	.09
158406	R220B50	B	220	50V	10x17	✻	.17	.14	.11
199081	R220J/100	A	220	100V	12.5x25	1.10	.85	.63	.39
198889	R330J/16	A	330	16V	8x11.5	.29	.19	.13	.09
93796	R330/25	A	330	25V	10x19	✻	.15	.12	.08
198977	R330J/35	A	330	35V	10x12.5	.45	.35	.25	.18
199099	R330J/100	A	330	100V	12.5x25	1.45	1.10	.79	.59
93809	R470/16	A	470	16V	10x20	✻	.12	.09	.08
158203	R470B16	B	470	16V	8x12	✻	.13	.11	.10
31181	R470/25	A	470	25V	10x16	✻	.13	.10	.09
158289	R470B25	B	470	25V	8x14	✻	.15	.12	.10
93817	R470/35	A	470	35V	12x24	✻	.17	.15	.13
93825	R470/50	A	470	50V	13x20	.29	.22	.15	.10
158465	R470B63	B	470	63V	13x21	.37	.34	.25	.15
199101	R470J/100	A	470	100V	16x25	1.89	1.45	1.10	.80
30015	R1000/16	A	1000	16V	13x21	✻	.15	.12	.09
93833	R1000/25	A	1000	25V	12x20	✻	.23	.19	.15
158297	R1000B25	B	1000	25V	10x17	.35	.29	.25	.19
158377	R1000B35	B	1000	35V	13x21	.39	.35	.29	.25
93841	R1000/50	A	1000	50V	16x26	.52	.42	.37	.31
199110	R1000J/100	A	1000	100V	18x40	3.59	2.69	1.99	1.55
133145	R2200/16	A	2200	16V	16x26	.39	.29	.25	.19
30533	R2200/25	A	2200	25V	16x36	.45	.39	.35	.25
198985	R2200J/35	A	2200	35V	16x25	1.39	.99	.79	.59
158431	R2200B50	B	2200	50V	16x31	.89	.75	.59	.49
198897	R3300J/16	A	3300	16V	12.5x25	.99	.79	.59	.39
30891	R3300/25	A	3300	25V	16x31	.69	.59	.49	.39
198993	R3300J/35	A	3300	35V	16x35.5	1.95	1.49	1.15	.83
199013	R3300J/50	A	3300	50V	18x35.5	3.10	2.35	1.75	1.32
198900	R4700J/16	A	4700	16V	16x25	1.35	.99	.75	.55
93850	R4700/25	A	4700	25V	18x35	.79	.69	.59	.49
199005	R4700J/35	A	4700	35V	18x35.5	2.95	2.19	1.69	1.25
163301	R4700/50	A	4700	50V	22x42	1.75	1.49	1.25	1.09
31510	R6800/16	A	6800	16V	18x36	1.12	1.01	.88	.79
198934	R6800J/25	A	6800	25V	18x35.5	2.79	2.15	1.59	1.19

Large Can Aluminum Electrolytic Snap Capacitors (±20%)

Snap-Ins!

- Designed as input filter for switched mode power supply; standard 10mm (.400") snap-in spacing
- Operating temperature range: -40°C to +85°C max. leakage current: 0.02CV (uA) or 3mA whichever is smaller • Can-Top safety vent
- ***Capacitor dimensions may vary***

115422

CROSS REFERENCES: Aero M: LP/LPR; **Elna**: LP3/LP4; **Illinois Capacitor**: LBA/LPR; **Mallory**: LDX; **Marcon**: CEAWF; **Nichicon**: LLK/LLQ; **Panasonic**: TS-UP/TS-U; **Phillips** (MEPCO): 3487/3489; **Rubycon**: RSP; **Sprague**: 80D/82D; **United Chemicon**: SMG(VN)/SMH(VN)

Part Number	Product Number	Capacitance	Voltage	Size (mm) D x L	Pricing 1	10	100
115351	SN220/200	220µF	200V	30 x 31	$.75	$.64	$.57
115377	SN470/200	470µF	200V	25 x 51	1.89	1.70	1.55
155889	SN560/200	560µF	200V	23 x 41	2.49	2.25	1.99
115422	SN4700/50	4,700µF	50V	30 x 51	2.29	2.10	1.85
115431	SN6800/50	6,800µF	50V	30 x 51	2.75	2.49	1.95
157737	SN10000/50	10,000µF	50V	35 x 40	3.95	3.49	2.95

Part Number Color Code
New Sale Refurbished Closeout

Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt, Z5U Temperature Coefficient

Any Ceramic Disc Capacitors may be supplied in ammo-style tape by special order – 1000 piece minimum

- ***Capacitor dimensions and lead spacing may vary***

✻Prepackaged: please order in increments of 10, 100 or 1000

Low Voltage 50VDC Ceramic

Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

Part Number	Product Number	Capacitance	Voltage	Dia. (mm)	Pricing 1	10	100	1000	5000
135141	DC2.2	2.2pF	50V	5	✻	$.03	$.02	$.015	$.013
15333	DC10	10pF	50V	5	✻	.05	.035	.02	.015
15405	DC22	22pF	50V	6	✻	.05	.035	.02	.015
15510	DC47	47pF	50V	5	✻	.05	.035	.03	.02
15341	DC100	100pF	50V	5	✻	.05	.035	.02	.015
15413	DC220	220pF	50V	5	✻	.05	.035	.025	.015
15528	DC470	470pF	50V	5	✻	.08	.07	.06	.05
15190	DC.001	.001µF	50V	6	✻	.07	.06	.05	.04
97341	DC.0022/1K20	.0022µF	1000V	11	✻	.15	.10	.06	.04
15211	DC.0047	.0047µF	50V	6	✻	.05	.035	.03	.02
15229	DC.01	.01µF	50V	6	✻	.06	.04	.03	.02
97375	DC.01/1K20	.01µF	1000V	12	✻	.15	.10	.06	.04
15245	DC.022	.022µF	50V	8	✻	.07	.05	.04	.03
15253	DC.047	.047µF	50V	8	✻	.07	.05	.04	.03
151116	DC.1/25	.1µF	25V	6	✻	.12	.10	.08	.06
15270	DC.1	.1µF	50V	8	✻	.13	.11	.10	.07

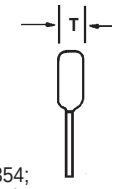
Mylar Capacitors (±10%)

Metallized Polyester Film Capacitors

Any Mylar Capacitors may be supplied in ammo-style tape by special order – 1000 piece minimum

- High performance at low cost • Non-inductive construction

Operating temperature range	-40°C to +85°C
Dissipation factor	≤.01 (at 1kHz)
Dielectric strength	150% of rated voltage for 5 sec.



Mylar Capacitor Cross References

Panasonic: ECQ-E Series; **Sprague:** DF/450P/451P/453P; **Westlake:** 160/168/185/167/184/186; **Rubycon:** MC/MN; **Mepco:** 713A1/719A1/C280; **TRW:** X601PE/X601CPE; **Packtron:** MF/RB; **Secor:** MMKS/MMKR/MMDR; **RIFA:** PHE353/PHE354; **Roederstein:** MKT 1818/MKT 1822; **WIMA:** MKS; **CSF Thompson:** MD/MC; **Siemens:** B325X-XX; **NIC:** NEM/NRM; **Nichicon:** DDXM; **Phillips:** 712 A1 series

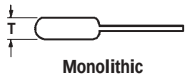
- ***Capacitor dimensions and lead spacing may vary***

† ±20% tolerance ✻ Prepackaged: please order in increments of 10, 100 or 1000

Part Number	Product Number	Capacitance	Voltage	Size (mm) L x T x H	Pricing 1	10	100	1000
26833	MY.001	.001µF	100V	7.0 x 3.0 x 7.0	✻	$.10	$.06	$.04
26868	MY.0022	.0022µF	100V	6.0 x 3.0 x 10.0	✻	.10	.06	.04
26876	MY.0047	.0047µF	100V	6.0 x 3.0 x 9.0	✻	.14	.13	.11
26884	MY.01	.01µF	100V	6.0 x 3.0 x 7.0	✻	.10	.06	.04
26905	MY.022	.022µF	100V	6.0 x 3.0 x 10.0	✻	.15	.10	.06
26921	MY.033	.033µF	100V	8.0 x 4.0 x 11.0	✻	.15	.10	.06
26930	MY.047	.047µF	100V	8.0 x 4.0 x 12.0	✻	.15	.10	.06
135562	MY.1/50	.1µF†	50V	14.0 x 6.0 x 12.0	✻	.13	.09	.05
26956	MY.1	.1µF	100V	12.5 x 5.0 x 9.5	✻	.17	.12	.07
93921	MY.1/250	.1µF	250V	12.5 x 5.5 x 10	✻	.25	.23	.20
135546	MY.22/50	.22µF	50V	17.0 x 9.0 x 16.0	✻	.23	.21	.19
26972	MY.22	.22µF	100V	12.5 x 5.5 x 10	✻	.19	.12	.07
93964	MY.33/250	.33µF	250V	18.0 x 7.0 x 12.5	.32	.25	.19	.15
26999	MY.47	.47µF	100V	18.0 x 6.0 x 11.5	.32	.25	.19	.15
27001	MY1	1µF	100V	18.0 x 7.5 x 14.0	.59	.49	.39	.25
93999	MY2.2/250	2.2µF	250V	26.0 x 9.0 x 16.0	.75	.65	.55	.45

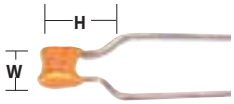
Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Any Monolithic Ceramic Capacitor may be supplied in ammo-style tape by special order – 1000 piece minimum



Monolithic

Applications: • Data processing
• Communications engineering
Operating temperature range: -10°C to +85°C
• Capacitor dimensions and lead spacing may vary
✻Prepackaged: please order in increments of 10, 100 or 1000



Part Number	Product Number	Capacitance	Voltage	Size (mm) W x T x H	Pricing 1	10	100	1000	5000
81541	MD10	10pF	50V	3.5 x 2.0 x 3.0	✻	$.12	$.09	$.07	$.05
81533	MD22	22pF	50V	4.0 x 2.0 x 4.0	✻	.10	.08	.07	.04
81525	MD100	100pF	50V	3.5 x 2.0 x 3.0	✻	.09	.07	.035	.03
81517	MD.001	.001µF	50V	4.5 x 2.0 x 3.0	✻	.09	.07	.05	.035
138181	MD.0022	.0022µF	50V	4.0 x 2.0 x 5.5	✻	.07	.06	.05	.04
138202	MD.0047	.0047µF	50V	5.0 x 2.0 x 5.5	✻	.09	.07	.05	.035
25507	MD.01	.01µF	50V	3.5 x 2.0 x 3.0	✻	.11	.09	.07	.04
57621	MD.047	.047µF	50V	2.5 x 2.5 x 3.0	✻	.12	.09	.05	.04
25523	MD.1	.1µF	50V	6.0 x 2.0 x 4.0	✻	.25	.23	.20	.18
25540	MD.22	.22µF	50V	6.0 x 2.0 x 4.5	✻	.15	.12	.07	.05
138237	MD.33	.33µF	50V	6.0 x 2.0 x 8.0	✻	.20	.17	.11	.07
25558	MD.47	.47µF	50V	4.5 x 2.5 x 4.5	✻	.20	.15	.11	.07
81509	MD1	1µF	50V	6.0 x 3.0 x 7.0	.58	.52	.46	.39	.29

Dipped Tantalum Capacitors (±10%)

Resin Dipped Solid Tantalum Capacitors

- Flame retardant coating • Exceptional temperature stability
- Low leakage current • Moisture-resistant
- Designed for entertainment and commercial equipment

Operating temp. range	-55°C to +85°C (+125°C with derating)
Rated voltage DC	≤ + 85°C

DIpped Tantalum Capacitor Cross References

Panasonic: EF Series; **AVX:** Tap Series; **Sprague:** 196D and 199D; **Kemet:** T350/ T360; **Mepco:** 49GS; **NEC:** DN; **Nichicon:** 599; **NIC:** NDTM; **Hitachi:** TSD-3; **Matsuo:** 202

- ***Capacitor dimensions and lead spacing may vary***

✻ Prepackaged: please order in increments of 10, 100 or 1000

Part Number	Product Number	Capacitance	Voltage	Size (mm) D x H	Pricing 1	10	100	1000
33486	TM.1	.1µF	35V	4.5 x 7.0	✻	$.25	$.19	$.15
33507	TM.22	.22µF	35V	4.5 x 7.0	✻	.25	.19	.15
33523	TM.33	.33µF	35V	4.5 x 7.0	✻	.17	.13	.10
33531	TM.47	.47µF	35V	4.5 x 7.0	✻	.25	.19	.15
154860	TM1/25	1µF	25V	3.0 x 6.0	✻	.29	.25	.22
33662	TM1	1µF	35V	4.5 x 7.0	✻	.29	.25	.22
94001	TM2.2/16	2.2µF	16V	4.5 x 7.0	✻	.29	.25	.19
94019	TM2.2/25	2.2µF	25V	4.5 x 7.0	✻	.35	.29	.22
33734	TM2.2	2.2µF	35V	4.5 x 7.5	.39	.35	.29	.25
33769	TM3.3	3.3µF	35V	4.5 x 7.5	.55	.45	.39	.35
94035	TM4.7/16	4.7µF	16V	4.5 x 7.5	.39	.35	.29	.25
94043	TM4.7/25	4.7µF	25V	5.0 x 8.5	.49	.39	.35	.29
33806	TM4.7	4.7µF	35V	5.5 x 9.0	.59	.49	.39	.35
33873	TM6.8	6.8µF	35V	6.0 x 10.0	.65	.55	.45	.39
94060	TM10/16	10µF	16V	5.0 x 9.0	.45	.39	.35	.32
94078	TM10/25	10µF	25V	5.5 x 9.0	.59	.49	.39	.35
33689	TM10	10µF	35V	6.0 x 10.0	.89	.79	.69	.59
33718	TM15	15µF	25V	6.0 x 10.0	.89	.79	.69	.59
33751	TM22	22µF	6.3V	5.0 x 9.0	.69	.59	.49	.35
94094	TM22/16	22µF	16V	6.0 x 10.0	.69	.59	.49	.45
94107	TM22/25	22µF	25V	7.0 x 10.5	1.59	1.39	1.19	1.09
33785	TM33	33µF	25V	8.0 x 13.0	2.25	1.95	1.75	1.55
94123	TM47/16	47µF	16V	8.0 x 13.0	1.19	1.09	.99	.89
33822	TM47	47µF	25V	9.0 x 14.5	2.95	2.75	2.25	1.49
33700	TM100	100µF	6.3V	7.0 x 10.5	1.19	1.09	.85	.75

SMT Multilayer Ceramic Chip Capacitors✦

Any surface mount Ceramic Chip Capacitor may be special ordered – 3000 piece minimum.

0805 SMT CASE

SALE

1206 SMT CASE

X7R SERIES (±10%)

0805 SMT Case✦			Pricing per each				
Part Number	Capacitance	Volt.	100 pc. Increments	500	1000	OEM Reels 3000	5000
87311	.01µF	50	$.12	$.09	$.07	—	$.05
87370	.1µF	25	.15	.12	.10	.08	—

1206 SMT Case✦			Pricing per each				
Part Number	Capacitance	Volt.	100 pc. Increments	500	1000	OEM Reels 3000	5000
87329	.01µF	50	$.15	$.13	$.11	—	$.09
87388	.1µF	50	.19	.17	.15	.11	—
87396	.22µF	25	.25	.22	.19	.15	—

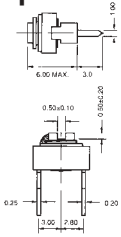
Z5U SERIES (±20%)

0805 SMT Case✦			Pricing per each			
Part Number	Capacitance	Voltage	100 pc. Increments	100	500	OEM Reels 1000
87177	.1µF	50	$.12	$.07	$.05	$.03

1206 SMT Case✦			Pricing per each			
Part Number	Capacitance	Voltage	100 pc. Increments	500	1000	OEM Reels 5000
87185	.1µF	50	$.15	$.12	$.09	$.07
87206	.22µF	50	.14	.08	.06	.05
87222	.47µF	50	.25	.22	.19	.15

5mm Ceramic Trimmer Capacitor

- Working voltage: 200VDC
- Withstand voltage: 400VDC
- Turning torque: 35~200 g-cm
- Operating temperature range: -30˚C~+85˚C
- Insulation resistance: >10MΩ min. @ 250VDC

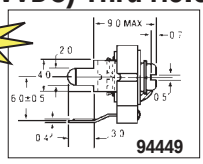


Part Number	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	1000
136979	9.0-50.0	> 200	Green	$.75	$.69	$.59	$.49

8mm .315" Ceramic Trimmer Capacitors (250WVDC) Thru Hole

134818

SALE



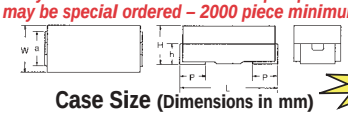
94449

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40~200 g-cm
- Operating temperature range: -55˚C~+85˚C
- Insulation resistance: 10MΩ min. @ 250VDC

Part Number	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	1000
134818	3.5–13.0	> 300	Ivory	$.69	$.62	$.56	$.51
32838	4.0–34.0	> 300	Yellow	.99	.79	.59	.39
32854	6.0–70.0	> 200	Nil	1.05	.85	.65	.45
94449	8.5–100	> 200	Purple	1.05	.93	.81	.77
94465	8.5–120	> 200	Nil	.99	.79	.59	.39

SMT Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)✦

Any surface mount Tantalum Chip Capacitor may be special ordered – 2000 piece minimum.



SALE

Case Size (Dimensions in mm)

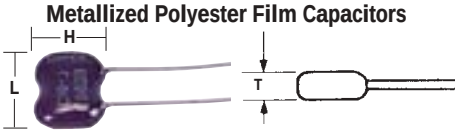
EIA CASE CODE	L ±0.2	W ±0.2	H ±0.2	P ±0.3	a ±0.2	h(min)
A (3216)	3.2	1.6	1.7	0.8	1.2	0.7
B (3528)	3.5	2.8	1.9	0.8	2.0	0.7
C (6032)	6.0	3.2	2.5	1.3	2.0	1.0
D (7343)	7.3	4.3	2.9	1.3	2.4	1.0

10V SMT Tantalum✦			Pricing per each				
Part Number	Capacitance	Case Size	10 pc. Increments	100	500	OEM Reels 500	2000
87020	10µF	B	$.55	$.49	$.35	—	$.29
87118	100µF	D	1.19	1.07	—	.97	—

16V SMT Tantalum✦			Pricing per each				
Part Number	Capacitance	Case Size	10 pc. Increments	100	500	OEM Reels 500	2000
86932	1µF	A	$.39	$.35	$.25	—	$.19
87038	10µF	C	.59	.49	—	.42	—
87100	47µF	D	1.09	.99	—	.89	—

Dipped Silver Mica Capacitors (±5%)

Metallized Polyester Film Capacitors



* Capacitor size and lead spacing may vary

Case type	DM15
Lead space (in.)	.23
Tolerance	± 5%
Operating temperature range	-55°C to +125°C
Size (mm) – L x T x H (may vary)*	11 x 4 x 9

Part Number	Product Number	Capacitance	Voltage	Pricing 1	10	100	1000
15991	DM100	10pF	500V	$.49	$.39	$.29	$.25
16037	DM220	22pF	500V	.49	.39	.29	.23
16070	DM330	33pF	500V	.49	.39	.29	.23
16096	DM470	47pF	500V	.45	.37	.31	.22
16002	DM101	100pF	500V	.49	.39	.31	.27
16088	DM331	330pF	500V	.95	.75	.55	.35
16109	DM471	470pF	500V	.89	.75	.58	.45
16011	DM102	1000pF	100V	.85	.75	.65	.55

Memory Back-Up Capacitors

Applications:

- Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)
- Memory back-up of remote controllers

SALE

142922

Features:

- Excellent voltage holding characteristics for low back-up currents
- Small size vs. capacitance
- Voltage: 5.5VDC
- Capacitance ranges from .047 to 1F

Capacitor dimensions and lead spacing may vary

Part No.	Product No.	Cap. (Farad)	1	10	100
142922	MBC.047/5.5	.047	$1.95	$1.75	$1.49
142949	MBC.22/5.5	.22	2.29	1.99	1.60
143010	MBC.47/5.5	.47	2.99	2.69	2.49
142957	MBC1.0/5.5	1.0	4.75	4.29	3.85

SMD Plastic Fliptop Case✦

Store 128 Different Surface Mount Components

- Perfect match to store P/N 156881 SMD resistor assortment, below
- 8 rows x 16 column grid
- Fliptop openings on each bin
- Color: gray
- Padded cover locks bins closed
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs.

Includes: Labels for each bin

Part No.	Description	1	10
164267	SMD fliptop case	$44.95	$39.95

SMD Resistor Assortment (±5%)✦

144 Values, 50 pcs. each; 7,200 Pieces Total

- Surface mount 0805 resistors, 144 values ranging from 1.2Ω to 10MΩ (50 pieces of each value)
- Size: L x W (mm) 2.0 x 1.25
- Thickness: 0.5mm
- Max. overload voltage: 200V
- Operating temp.: -50˚C to 120˚C
- Weight: 1.9 lbs
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T

Resistance Value Chart:

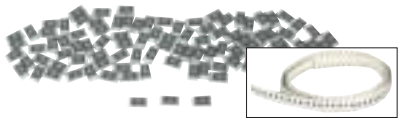
1.2	33	430	4.3k	51k	620k
1.6	39	470	4.7k	56k	750k
2.2	43	510	5.6k	62k	820k
2.4	47	560	6.2k	68k	910k
2.7	51	620	6.8k	75k	1.0M
3.0	56	680	7.5k	82k	1.6M
3.3	62	750	8.2k	91k	1.8M
4.3	68	820	9.1k	100k	2.0M
4.7	75	910	10k	110k	2.2M
5.1	85	1.0k	11k	120k	2.4M
5.6	91	1.1k	12k	150k	2.7M
6.2	110	1.2k	13k	160k	3.0M
6.8	120	1.3k	15k	180k	3.3M
7.5	130	1.5k	16k	200k	3.6M
8.2	150	1.6k	18k	220k	3.9M
9.1	160	1.8k	20k	240k	4.3M
10	180	2.0k	22k	270k	4.7M
16	200	2.2k	24k	300k	5.1M
18	220	2.4k	27k	360k	5.6M
20	240	2.7k	30k	390k	6.8M
22	270	3.0k	33k	430k	7.5M
24	300	3.3k	36k	470k	8.2M
27	360	3.6k	39k	510k	9.1M
30	390	3.9k	43k	560k	10M

Includes: Case with labels

Part No.	Product No.	1	10	25
172806✦	16-500	$79.95	$71.95	$64.79

SMD Resistor Assortment (±1%)✦

56 Values, 200 pcs. each; 11,200 pcs.Total



Packaged in strips of 200 pieces each

Surface mount 1206 resistors, 56 values ranging from 10 to 1MΩ – see chart.

Value Chart (Ohms)

10	100	1k	10k	100k
12.1	121	1.21k	12.1k	121k
15	150	1.5k	15k	150k
20	200	2k	20k	200k
24.3	243	2.43k	24.3k	243k
30.1	301	3.01k	30.1k	301k
39.2	392	3.92k	39.2k	392k
49.9	499	4.99k	49.9k	499k
61.9	619	6.19k	61.9k	619k
75	750	7.5k	75k	750k
90.9	909	9.09k	90.9k	909k

- Max. working voltage: 200V
- Max. overload voltage: 400V
- Power @ 70˚C: 1/8W
- Operating temp.: -55˚C to +125˚C
- Resistor dimensions (mm): 3.10±0.10L x 1.55±0.10 W x 0.55±0.10–0.05H top terminator: 0.45±0.20W bottom terminator: 0.35±0.15W
- Temp. coefficient: ±100 ppm/˚C
- 4-digit indication: 1st 3 significant, 4th multiplier

Part No.	Product No.	1	10	25
156881✦	SMR1206SB	$99.95	$89.95	$79.95

1/4 Watt Carbon Film Resistors (±5%)

Part Number Color Code
New Sale Refurbished Closeout

Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below
Values may not be combined for quantity price breaks

$.99/bag 100 piece bags

Pricing (Per resistor: Sold in bags of 100 pieces)				
Specify Part No. & Resistor Value	1 Bag	10 Bags	50 Bags	100 Bags
(see Standard Resistor Value Chart below)	$.99/bag	$.57/bag	$.49/bag	$.46/bag

Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719	5 ea. of 70 values (every other value from 10 ohm-5.6 MΩ) (350 pcs.)	$8.95	$7.95	$6.49
103165	10 ea. of 24 values marked (●) and 50 ea. of 6 values marked (✗) (540 pcs.)	12.95	11.49	9.95
10663	100 ea. of 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655	100 ea. of 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832	1/4 watt resistor component cabinet kit – 30 values (540 pcs.) see page 48	27.95	24.95	22.49

Bulk pack resistor values can be ordered in quantities of 1000 pieces – $10.95/k

Standard Resistor Values Chart

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms
Bulk Pack	2.2	Bulk Pack	15	29946 ▲✗	100	31499 ▲●	680	31026 ▲✗	4.7k	30841 ▲●	33k	30525	220k	Bulk Pack	1.5M
Bulk Pack	2.4	Bulk Pack	16	Bulk Pack	110	Bulk Pack	750	31237 ▲●	5.1k	Bulk Pack	36k	Bulk Pack	240k	Bulk Pack	1.6M
Bulk Pack	2.7	Bulk Pack	18	30082	120	Bulk Pack	820	31270 ▲●	5.6k	Bulk Pack	39k	Bulk Pack	270k	Bulk Pack	1.8M
Bulk Pack	3.0	Bulk Pack	20	Bulk Pack	130	Bulk Pack	910	Bulk Pack	6.2k	Bulk Pack	43k	Bulk Pack	300k	Bulk Pack	2.0M
Bulk Pack	3.3	Bulk Pack	22	30162 ▲●	150	29663 ▲✗	1.0k	Bulk Pack	6.8k	31149 ▲●	47k	Bulk Pack	330k	Bulk Pack	2.2M
Bulk Pack	3.6	Bulk Pack	24	Bulk Pack	160	Bulk Pack	1.1k	Bulk Pack	7.5k	Bulk Pack	51k	Bulk Pack	360k	Bulk Pack	2.4M
Bulk Pack	3.9	Bulk Pack	27	Bulk Pack	180	29735 ●	1.2k	Bulk Pack	8.2k	Bulk Pack	56k	Bulk Pack	390k	Bulk Pack	2.7M
Bulk Pack	4.3	Bulk Pack	30	Bulk Pack	200	Bulk Pack	1.3k	Bulk Pack	9.1k	Bulk Pack	62k	Bulk Pack	430k	Bulk Pack	3.0M
Bulk Pack	4.7	Bulk Pack	33	30470 ▲✗	220	29760 ▲●	1.5k	29911 ▲✗	10k	Bulk Pack	68k	31202 ▲●	470k	Bulk Pack	3.3M
Bulk Pack	5.1	Bulk Pack	36	Bulk Pack	240	Bulk Pack	1.6k	Bulk Pack	11k	Bulk Pack	75k	Bulk Pack	510k	Bulk Pack	3.6M
Bulk Pack	5.6	Bulk Pack	39	30605 ▲●	270	Bulk Pack	1.8k	Bulk Pack	12k	Bulk Pack	82k	Bulk Pack	560k	Bulk Pack	3.9M
Bulk Pack	6.2	Bulk Pack	43	Bulk Pack	300	30277 ▲●	2.0k	Bulk Pack	13k	Bulk Pack	91k	Bulk Pack	620k	Bulk Pack	4.7M
Bulk Pack	6.8	31106 ▲●	47	30867 ▲●	330	30314 ▲●	2.2k	30146 ▲●	15k	29997 ▲✗	100k	Bulk Pack	680k	Bulk Pack	5.1M
Bulk Pack	7.5	Bulk Pack	51	Bulk Pack	360	Bulk Pack	2.4k	Bulk Pack	16k	Bulk Pack	110k	Bulk Pack	750k	Bulk Pack	5.6M
Bulk Pack	8.2	Bulk Pack	56	30963 ●	390	30390 ▲●	2.7k	Bulk Pack	18k	Bulk Pack	120k	Bulk Pack	820k	Bulk Pack	6.2M
Bulk Pack	9.1	Bulk Pack	62	Bulk Pack	430	Bulk Pack	3.0k	Bulk Pack ●	20k	Bulk Pack	130k	Bulk Pack	910k	Bulk Pack	6.8M
29882 ▲●	10	Bulk Pack	68	31165 ▲●	470	30672 ▲●	3.3k	30453 ▲●	22k	Bulk Pack	150k	29698 ▲●	1.0M	Bulk Pack	7.5M
Bulk Pack	11	Bulk Pack	75	Bulk Pack	510	Bulk Pack	3.6k	Bulk Pack	24k	Bulk Pack	160k	Bulk Pack	1.1M	Bulk Pack	8.2M
Bulk Pack	12	Bulk Pack	82	31376	560	Bulk Pack	3.9k	Bulk Pack	27k	Bulk Pack	180k	Bulk Pack	1.2M	Bulk Pack	9.1M
Bulk Pack	13	Bulk Pack	91	Bulk Pack	620	Bulk Pack	4.3k	Bulk Pack	30k	Bulk Pack	200k	Bulk Pack	1.3M	29938 ▲●	10M

1/8 & 1/2 Watt Carbon Film Resistors (±5%)

1/8 & 1/2 Watt Resistor Assortments Value Chart (Ohms)

10 ✓✗	150 ✓✗	330 ✓✗	680 ✓✗	2.0k ✓✗	3.3k ✓✗	5.6k ✓✗	15k ✓✗	33k ✓✗	470k ✓✗
47 ✓✗	220 ✓#	390 ✗	1.0k ✓#	2.2k ✓✗	4.7k ✓#	6.8k ✗	22k ✓✗	47k ✓✗	1.0M ✓✗
100 ✓#	270 ✓✗	470 ✓✗	1.5k ✓✗	2.7k ✓✗	5.1k ✓✗	10k ✓#	27k ✗	100k ✓#	10M ✓✗

(✓), (✗), (#) symbols indicate Resistor values included in Assortments below.

1/8 Watt Carbon Film Resistor (+5%) Assortments

Any standard resistor value (above) may be special ordered –
1,000 pc. minimum – $12.95/k (bulk) – call for larger quantity pricing.

Part No.	Product No.	Description	1	10
108302	ASST1830	10 each of 24 values marked by ✗ and 50 each of 6 values marked by # (540 pcs.) (see chart above)	$12.95	$11.49
108290	ASST1827	100 each of 27 values marked by ✓ (2,700 pcs.) (see chart above)	29.95	26.95
108329	CAB182R	1/8 watt resistor component cabinet kit – 30 values (540 pcs.) see page 48	27.95	24.95

1/2 Watt Carbon Film Resistor (+5%) Assortments

Any standard resistor value (above) may be special ordered –
1,000 pc. minimum – $15.95/k (bulk) – call for larger quantity pricing.

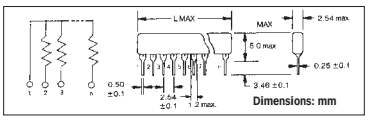
Part No.	Product No.	Description	1	10
107836	ASST1270	5 each of 70 values (every other value from 10 ohm-5.6M ohm)(350 pcs.)(see chart – top of page)	$10.95	$9.95
107852	ASST1230	10 each of 24 values marked by ✗ and 50 each of 6 values marked by # (540 pcs.) (see chart above)	14.95	13.49
107844	ASST1227	100 each of 27 values marked by ✓ (2,700 pcs.) (see chart above)	34.95	31.49
107879	CAB12R	1/2 watt resistor component cabinet kit – 30 values (540 pcs.) (see page 48)	29.95	26.95

Resistor Networks (±2%)

Single-In-Line "SIP" Resistor Networks

8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):
- **8-pin package (7 resistors) = 8BRN**
  10-pin package (9 resistors) = 10BRN
- Rated power per resistor at 70°C: 125mW/ resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body height)
- Low profile is compatible with DIPs
- Cermet thick film construction



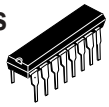
✻ 10 piece minimum

Pricing per each			
1	10	100	1000
✻	$.26	$.22	$.16
Pricing for P/N 97826			
✻	$.22	$.19	$.13

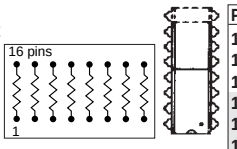
Part No.	Pins	Ohms
97826	8	10k
97851	10	330
97869	10	470
97877	10	1.0k
97893	10	2.2k
24660	10	4.7k
24643	10	10k
98087	10	47k
98095	10	100k

Dual-In-Line "DIP" Resistor Networks

16-Pin Isolated (140mW/Resistor) ±2%



Features (16IRN):
- Maximum operating voltage: 100V • Tolerance: ±2%
- Temperature coefficient: ±100ppm/°C
- Operating temperature: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation



Pricing per each			
1	10	100	1000
$.49	$.43	$.37	$.31

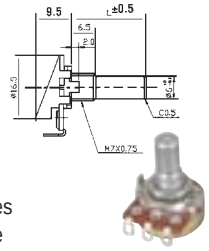
Part No.	Ohms
164005	33
108556	100
108564	220
108572	330
108581	470
108599	1.0k
108610	4.7k
108628	10k
108644	100k

SIP and DIP Resistor Network Cross Reference Chart

Jameco	CTS	A – B	Bourns	Dale	Beckman	Sprague	MEPCO
8BRN…	770-81-R…	708A…	4608X-101…	CSC08A01…	L08-1-R…	356CF… X2PD	9S08… GL002
10BRN…	770-101-R…	710A…	4610X-101…	CSC10A01…	L10-1-R…	256CX … X2PD	9S10… GL002
16IRN…	761-3-R…	316B…	4116R-001…	MDP16-03…	898-3-R…	916C… X5SR	D16H… 12-J

0.2 Watt Linear Taper Potentiometer (±20%)

- Number of detents: 10
- Shaft diameter: 0.235"
- Shaft length: 0.605"
- Insulation resistance: 100MΩ @ 500VDC
- Mounting hole: .27"
- Max. panel thickness: 0.15"
- Max. operating voltage: 150VAC
- Rotational life: 15,000 cycles



Includes: Mounting hardware

Part No.	Product No.	Ohms	1	10	100	500
163563	PMD401	10k	$1.45	$1.30	$1.17	$1.05

1/4 Watt Miniature Linear Potentiometers (±20%)

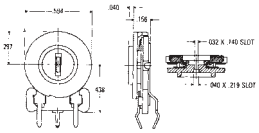
X201 (19/32") Vertical Mount

- 15mm thick
- Voltage rating: 350 VDC
- Reliable CTS composition resistance element
- Power rating:
  below 5kΩ – 1/4 watt @ 40°C
  5kΩ & above – 1/4 watt @ 55°C
- Total rotation: 260° ±5°

94692

Cross Reference Chart

Equivalent to:	
CTS	X201R
Bourns	3355X
PIHER	PT15



✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	Ohms	1	10	100	500
161859	X201R150	150	✻	$.04	$.03	$.02
94692	X201R1K	1k	.45	.35	.31	.28
35502	X201R252B	2.5k	.09	.08	.07	.06
94705	X201R5K	5k	.39	.32	.25	.17
94713	X201R10K	10k	.45	.35	.31	.28
172136	X201R25K	25k	.45	.40	.36	.32
94721	X201R50K	50k	.12	.10	.08	.06
94730	X201R100K	100k	.45	.35	.31	.28

Multi-Turn Potentiometers (±10%)

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ min.

Series 3299:

- 25-turn; cermet type
- Absolute minimum resistance: 2Ω or 1% max.
- Load life: 200 cycles, 0.5W

Series 3299

Series 3540:

- 10-turn; wirewound
- Absolute minimum resistance: 1Ω or 0.1% max.
- Load life: 1,000 hours, 2W

Series 3540

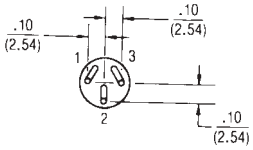
Part No.	Product No.	Ohms	1	10	50
183556	3299W-102	1k	$2.95	$2.75	$2.49
183564	3299W-103	10k	2.95	2.75	2.49
183572	3299W-104	100k	2.95	2.75	2.49
183530	354OS-1-202	2k	13.49	11.95	10.95
183548	354OS-1-502	5k	13.49	11.95	10.95
183521	354OS-1-103	10k	13.49	11.95	10.95

1/2 Watt, 1/4" Round, Cermet Potentiometers (±10%)

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C • TO-5 grid
- Top adjustment
- Terminals: solderable pins

Cross Reference Chart

Equivalent to:	
Beckman	82M
Bourns	3329P
Mepcopal	8050
MEC	471
Murata	3321P
Spectrol	62-3
VRN	171
Weston	567



95484

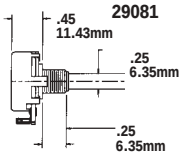
Part No.	Product No.	Ohms	1	10	100	500
95441	3329P1K	1k	$1.79	$1.59	$1.29	$1.16
95450	3329P5K	5k	1.69	1.39	1.27	1.15
96719	3329P10K	10k	1.79	1.59	1.29	1.16
95484	3329P100K	100k	1.79	1.59	1.29	1.16

1/2 Watt Linear Taper Potentiometers (±10%)

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.5625"
- Max. panel thickness: 0.1875"

Includes: Mounting hardware

29081



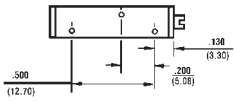
Part No.	Product No.	Ohms	1	10	100	500
29049	P1K	1k	$.99	$.79	$.65	$.55
29196	P5K	5k	.99	.79	.65	.55
29081	P10K	10k	.99	.79	.65	.55
29102	P100K	100k	.99	.79	.65	.55
29065	P1MEG	1M	.99	.79	.65	.55

3/4 Watt, 3/4" Rectangular 15-Turn Linear Cermet Potentiometers (±10%)

- PC pins: .100" grid (2.54mm)
- Side adjusting
- Sealed to guard against contaminants
- Temp. range: -55°C to +125°C

Cross Reference Chart

Equivalent to:	
Beckman	89PR
Bourns	3006P
Mepcopal	8034
Murata	2101P
Spectrol	43P
VRN	961-20
Weston	830P



41911

Part No.	Product No.	Ohms	1	10	100	500
181972	43P201	200	$1.15	$.85	$.65	$.49
41937	43P500	500	1.15	.95	.75	.59
41785	43P1K	1k	1.15	.95	.75	.59
41865	43P2K	2k	1.15	.95	.75	.59
41890	43P5K	5k	1.15	.95	.75	.59
41822	43P10K	10k	1.15	1.03	.93	.84
41873	43P20K	20k	1.15	.95	.75	.59
41911	43P50K	50k	1.15	.95	.75	.59
41849	43P100K	100k	1.15	.95	.75	.59
63001	43P200K	200k	.95	.79	.55	.39
41953	43P500K	500k	1.15	.95	.75	.59
41806	43P1MEG	1M	1.15	.95	.75	.59

2 Watt Linear Taper Potentiometers (±20%)

- Temp. range: -10°C to +70°C
- Shaft diameter: 0.25" • Length: 0.825"
- Mounting hole: 0.375" • See knobs, pg 84
- Non-rotational key • Base length: 0.25"

123959

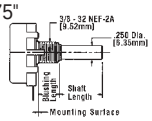
Includes: Mounting hardware

Part No.	Product No.	Ohms	1	10	100	500
123959	PT1K	1k	$3.29	$2.99	$2.65	$2.39
123967	PT5K	5k	3.29	2.99	2.65	2.39

2 Watt Linear Taper Potentiometers

- 2 watts @ 70°C ambient
- Conductive plastic element
- Military No.: RV4N-AYSD
- Temperature range: -55°C to +120°C
- Non-rotational key
- Shaft: diameter: 0.25"; length: 0.875"
- Mounting hole: 0.375"
- Maximum panel thickness: 0.25"
- See knobs page 84

95417



Includes: Mounting hardware

Part No.	Product No.	Ohms	1	10	50	100
183610	53C3-500	500	$7.95	$6.95	$5.95	$5.25
13936	CMU1021	1k	7.95	6.95	5.95	5.25
13995	CMU5021	5k	7.95	6.95	5.95	5.25
13952	CMU1031	10k	7.95	6.95	5.95	5.25
95417	CMU5031	50k	7.95	6.95	5.95	5.25
13979	CMU1041	100k	7.95	6.95	5.95	5.25

5 Watt Linear Taper Wire Wound Potentiometers (±20%)

- Temperature range: -10˚C to 70˚C
- Shaft diameter: 0.23" (6mm)
- Shaft length: 0.67", except P/N 140521 (0.25")
- Mounting hole: 0.32"
- Max. panel thickness: 0.1" • Non-rotational key

140513

Includes: Mounting hardware

Part No.	Product No.	Ohms	1	10	50	100
140513	PW5B100	100	$2.95	$2.49	$1.95	$1.75
140521	PW5B500	500	2.95	2.65	2.39	2.15

1/2 Watt, 3/8" Square, Single-Turn Cermet Potentiometers (±10%)

- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- TO-5 grid
- Top adjusting
- Sealed to guard against contaminants
- Temp. range: -55°C to +125°C

42964

Cross Reference Chart

Equivalent to:	
Beckman	72PR
Bourns	3386P
Mepcopal	8038
Murata	3104P
Spectrol	63P
VRN	780-12P
Weston	840P

† Dimension A = .20"

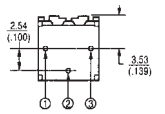
Part No.	Product No.	Ohms	1	10	100	500
43123	63P500	500	$.79	$.65	$.55	$.45
42964	63P1K	1k	.79	.65	.55	.45
43043	63P2K	2k	.79	.65	.55	.45
43078	63P5K	5k	.79	.65	.55	.45
43001	63P10K	10k	.79	.65	.55	.45
43051	63P20K	20k	.79	.65	.55	.45
43107	63P50K	50k	.79	.65	.55	.45
43027	63P100K	100k	.79	.65	.55	.45
43060	63P300K †	300k	.79	.65	.49	.29
63212	63P500K	500k	.79	.65	.55	.45
42981	63P1MEG	1M	.79	.65	.55	.45
105216	63P2MEG †	2M	.79	.59	.42	.24

1/2-Watt Trimming Potentiometers (±10%)

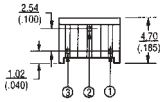
- Linear taper
- Absolute min. resistance: 1% or 2Ω max.
- Contact resistance variation: 1% or 1Ω max.
- Insulation resistance: 500VDC; 1,000MΩ minimum
- Rotational life: 200 cycles
- Terminals: solderable pins
- Wiper positioning: 50% nominal

SALE

191644


3362P Series

182879


3362W Series

191409

3362P Series

- 1/4" top adjustment angle: 240˚ nominal
- 189341: Manufacturer – Copal

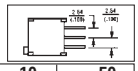
Part No.	Product No.	Ohms	1	10	100	500
191644	3362P1-200	20	$.69	$.59	$.49	$.39
189341	CT6P-500	50	.69	.59	.49	.39
182810	3362P1-501	500	.69	.53	.33	.23
182828	3362P1-502	5k	.69	.53	.42	.32
182836	3362P1-103	10k	.79	.65	.55	.45
182844	3362P1-204	200k	.69	.59	.49	.39
182852	3362P1-105	1M	.69	.59	.49	.39

3362W Series • 1/4" side adjustment single turn

Part No.	Product No.	Ohms	1	10	100	500
182879	3362W1-201	200	$.29	$.26	$.23	$.20
182887	3362W1-501	500	.29	.26	.23	.20
182895	3362W1-102	1k	.29	.26	.23	.20

3299Y Series • 3/8" square, 25-turn potentiometer

- Load Life: 1,000 hours 0.5W @ 70˚C • Wipers set @ CW end



Part No.	Product No.	Ohms	1	10	50
191417	3299Y501	500	$2.75	$2.49	$2.25
191396	3299Y102	1k	2.75	2.49	2.25
191425	3299Y502	5k	2.75	2.49	2.25
191409	3299Y104	100k	2.75	2.49	2.25

Audio Transformers

- Insulation resistance: 100MΩ • Vacuum wax impregnated
- ±20% impedance matching • Hipot tested: 100VAC
- +_20% DC resistance matching • Core type: EI-14

125356

125356: • Impedance (pri./sec.): 600CTΩ/600CTΩ
- Resistance (pri./sec.): 65Ω/55Ω

125401: • Impedance (pri./sec.): 600CTΩ/600Ω/600Ω
- Resistance (pri./sec.): 72Ω; 56Ω/56Ω

170077: • Impedance (pri./sec.): 7000CTΩ/1000CTΩ
- Resistance (pri./sec.): 400Ω/385Ω

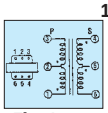


Fig. 1

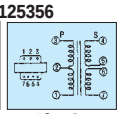


Fig. 2

Part No.	Product No.	Fig	1	10	100
125356	XFR6006A14	1	$1.35	$1.22	$1.09
125401	XFR60066A14	2	1.39	1.25	1.09
170077	TL018	1	.55	.46	.41

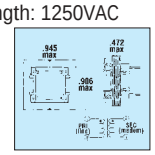
Modem Coupling Transformers

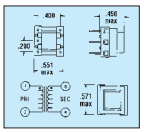
- Pri./Sec. impedance: 600Ω • Dielectric strength: 1250VAC
- UL/CSA approved

141621: (Midcom equivalent)
- Insertion loss: 1.25dB @ 1kHz
- Resistance (Pri./Sec.): 46.5Ω/67.6Ω

117760: Midcom • DC current: 30mA
- Insertion loss: 2.5dB @ 1kHz
- Resistance (Pri./Sec.): 108Ω/120Ω

173921: Midcom • Insertion loss: 0.75dB ±0.25 dB @ 1kHz
- Resistance (Pri./Sec.): 25.1Ω/20.3Ω


117760


141621

Part No.	Product No.	1	10	100
141621	671-8255 (Midcom equivalent)	$1.95	$1.75	$1.49
117760	671-8014 (Midcom)	1.95	1.75	1.49
173921	671-8000 (Midcom)	.39	.36	.34

Modem Coupling Transformer

- Impedance (pri./sec.): 600Ω/600Ω • Resistance (pri./sec.): 87Ω/108Ω • Measuring frequency: 1kHz, 1VDC bias 90mA
- Frequency response: (±2dB) 300-600Hz; (±0.75dB) 600-3500Hz

Part No.	Product No.	1	10	100
167169	TL1919	$1.39	$1.15	$.89

ISDN Transformer

- DC resistance: pins 2 & 7: 13.5Ω; pins 5 & 4: 7.5Ω; pins 6 & 3: 9.5Ω (max.) • Turns ratio: 1:0.75
- Dielectric withstanding voltage: 60Hz, 1 min. 200Vrms
- Inductance: 15-3 (6-4) connected 77mH @ 30mAdc

SALE

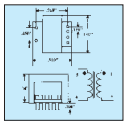
✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	1	10	100
172081	PT4084	✻	$.10	$.09

Voice/Data Coupling Transformer

- Pri./Sec. impedance: 600Ω • Turns ratio: ±2%
- Resistance (Pri./Sec.): 63Ω/88Ω
- Frequency response: 300-3500Hz (±0.5dB)

SALE



Part No.	Product No.	1	10	100
164128	SPT115	$.36	$.33	$.29

Class 1 Current Transformers

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.

- Maximum voltage: 660VAC • Frequency: 50/60Hz
- Size: 3.0"L x 3.2"W x 1.6" thick
- Weight: 1.1 lbs.

174887: Ratio 200A/5A; 5VA
174895: Ratio 400A/5A; 10VA
Includes: Mounting bracket and hardware

174887

Part No.	Product No.	Power	1	10	100
174887	MSQ30	5VA	$4.25	$3.82	$3.44
174895	MSQ40	10VA	2.75	2.45	2.20

10A Current Sensing Transformer

1 Volt/1 Amp

- Sensed current max.: 10A • Sensitivity voltage (V_{out}): 1V
- Sensitivity current (Iin): 1A • Frequency range: 20-50kHz
- Turns: 50 • Inductance: 50mH
- Terminating resistor: 50Ω
- Size: 0.77"L x 0.57"W x 0.75"H

SALE

Part No.	Product No.	1	10	100
154659	CS4050V	$.45	$.40	$.36

300mA Current Sensing Transformer

1 Volt/1 Amp

- Max. current: 300mA (terminals 1 & 3)
- Sensitivity voltage (V_{out}): 1V • Sensitivity current (I_{in}): 1A
- Frequency range: 10-50kHz • Terminating resistance: 50Ω
- Size: 0.8"H x 0.7"W x 0.4"T • Turns: 60 • Inductance: 5mH

Part No.	Product No.	1	10	100
164718	MTC30101	$1.75	$1.49	$1.25

Overcurrent Detectors and Accessories

These isolated detectors provide ultra fast stand alone overcurrent detection, ensuring fail safe operation for MOSFET, IGBT, and SCR based power circuits.

Specs for Overcurrent Detectors:
- Supply voltage: 3.8 to 24VDC
- Supply current: 10mA maximum
- Operating temp.: -40˚C to 125˚C
- Output trip time: 1uS

SALE

181622

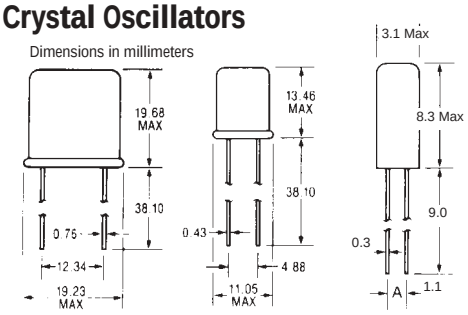
181649

181614: Trip current: 50A @ 25˚C
181622: Trip current: 125A @ 25˚C
181631: 50A evaluation board for easy in circuit evaluation
181649: 125A evaluation board for easy in circuit evaluation

Part No.	Iso Sense No.	Description	1	10	100
181614	9001-050	50A detector	$4.99	$4.48	$4.03
181622	9001-125	125A detector	5.49	4.94	4.44
181631	9001-050EVB	50A evaluation board	15.29	13.74	12.36
181649	9001-125EVB	125A evaluation board	15.79	14.18	12.76

Crystal Oscillators

Dimensions in millimeters

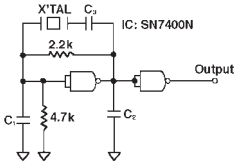


HC33/U Case HC49/U (HC18/U) Case TF Case

- Frequency calibration tolerance: ± 50ppm @ 25°C
- Operating temperature: -10°C to +60°C
- Drive level: 4.0 mW maximum
- Frequency stability tolerance: ±50 ppm from -10°C to +60°C
- Shunt capacitance: 7pF maximum

SALE

Application Reference (4~14MHz) (Parallel Resonance)



C1: 150-470 pF
C2: 220-820 pF
C3: Match crystal impedance

HC33/U Case

Part Number	Product Number	Frequency (MHz)	Impedance	Microprocessor	Pricing 1	10	100	1000
14349	CY1	1.0	13pF	MC6800/6808/6809E/6500 series	$4.95	$4.49	$3.95	$3.49
14357	CY1.84	1.8432	Series	MC14411/CDP1802/CDP1804	2.19	1.99	1.79	1.59

HC49/U (HC18/U) Case

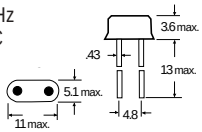
102613	CY1.843	1.8432	18pF	MC14411/MC6802	$.99	$.72	$.51	$.39
102621	CY2.0	2.0	Series	2650/F-8	1.49	1.25	.99	.75
101274	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	.89	.79	.69	.59
14525	CY3.27	3.2768	18pF	IM6100C/CDP1802/CDP1804	.89	.79	.69	.59
14533	CY3.57	3.579545	18pF	MC6801,2,3/MM5369	.89	.79	.69	.59
14568	CY3.68	3.6864	18pF	8748/8035-8	.89	.79	.69	.59
14592	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	.89	.79	.69	.59
14621	CY4.91	4.9152	Series	CDP1802C/1804/1804C	.89	.79	.69	.59
14681	CY6	6.0	18pF	MCS-48/IM8048	.79	.69	.55	.45
14699	CY6.14	6.144	30pF	MCS-85/8085	.79	.69	.55	.45
14710	CY7.37	7.3728	30pF	8051/8031	.89	.79	.69	.59
14728	CY8	8.0	Series	IM6100A/MC68B09	.79	.69	.49	.39
14381	CY10	10.0	Series	MCS-85/8085A-2	.79	.69	.59	.49
120061	CY11.05	11.0592	Series	General purpose	.89	.79	.69	.59
14402	CY12	12.0	Series	MCS-86/8086/8284/8202	.89	.79	.65	.49
14453	CY16	16.0	Series	8080/8224/general purpose	.99	.89	.79	.69
14517	CY20	20.0	Series	MCS-80/8080A/8224	.79	.69	.59	.39

TF Case

14584	CY32.76	32.768kHz	10.5pF	Tuning fork	$.89	$.79	$.69	$.59

Low Profile Crystal Oscillators

- Frequency range: 3.5 to 70.0MHz
- Operating temp.: -10˚C to +60˚C
- Drive level: 0.5mW (fundamental frequency)
- Aging: ±5ppm/year maximum
- Frequency stability tolerance: ±50ppm



HC49/S Case

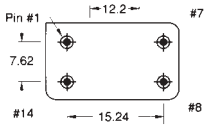
HC49/S Case (Low Profile)

Part Number	Product Number	Frequency (MHz)	Imped.	Max. Resist.	Microprocessor	Pricing 1	10	100	1000
137816	CY3.57LP	3.579545	17pF	150Ω	MC6801, 2, 3/MM5369	$1.05	$.85	$.75	$.65
137832	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	1.05	.85	.75	.65
137859	CY8LP	8.000	Series	60Ω	IM6100A/MC68B09	.77	.69	.63	.59
137875	CY11.05LP	11.0592	Series	50Ω	General purpose	1.05	.85	.75	.65
137891	CY16LP	16.000	Series	40Ω	8080/8224/general purpose	.77	.69	.63	.59

TTL Crystal Oscillators

Full Can

Dimensions in millimeters



Specifications:

- Input voltage: +5VDC ±0.5VDC
- OSC series oscillators fit into a 14-pin DIP socket PN 133006, below
- Frequency stability ±100ppm
- Operating temperature: 0°C to 70°C

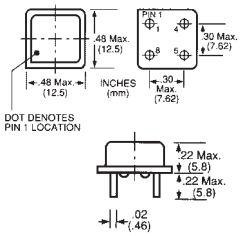
Pin #	Function
1	N/C
4	GND
5	Output
14	+5VDC

Half Can

SALE

- OSCH series oscillators fit into a standard 8-pin DIP socket P/N 51625, pg 50
- Input voltage: +5VDC ±0.5VDC
- Frequency stability: ±100ppm
- Operating temperature: 0°C to 70°C

Pin #	Function
1	N/C
4	GND
5	Output
8	+5VDC



Socket

133006

Full Can

Part Number	Product Number	Frequency (MHz)	Input Current	Rise Fall Time	Max Input Current	Output Current	Pricing 1	10	100	1000
27861	OSC1	1.0	45mA	15ns	7mA	-1mA	$3.49	$2.95	$2.59	$2.25
27879	OSC184	1.8432	45mA	15ns	7mA	-1mA	1.99	1.79	1.49	1.29
27924	OSC2	2.0	30mA	15ns	7mA	-1mA	2.29	2.09	1.95	1.75
27967	OSC4	4.0	50mA	10ns	7mA	-1mA	1.89	1.69	1.39	1.19
27991	OSC8	8.0	30mA	15ns	15mA	-3mA	1.29	1.09	.89	.69
27887	OSC10	10.0	20mA	10ns	15mA	-3mA	1.29	1.09	.69	.55
144207	OSC11.05	11.059	30mA	10ns	50mA	-3mA	1.29	1.09	.89	.69
27895	OSC12	12.0	50mA	10ns	15mA	-3mA	1.29	1.09	.89	.69
108652	OSC14.31	14.31818	50mA	10ns	15mA	-3mA	.55	.48	.43	.38
27908	OSC16	16.0	50mA	10ns	15mA	-3mA	1.29	1.09	.69	.55
27932	OSC20	20.0	20mA	10ns	17mA	-3mA	1.29	1.09	.89	.79
27941	OSC32	32.0	15mA	7ns	18mA	-4mA	1.29	1.19	.99	.79
76822	OSC33	33.0	15mA	6ns	18mA	-4mA	1.49	1.35	1.25	1.10
153226	OSC40	40.0	15mA	6ns	18mA	-4mA	.75	.64	.57	.51
76831	OSC50	50.0	25mA	6ns	25mA	-4mA	1.29	1.19	.99	.79
77489	OSC80	80.0	80mA	3ns	25mA	-4mA	1.09	.96	.86	.77
76857	OSC100	100.0	90mA	3ns	25mA	-4mA	2.49	2.25	1.95	1.75

Half Can

95249	OSC1H	1.0	20mA	6ns	30mA	-0.4mA	$1.75	$1.54	$1.38	$1.24
102779	OSC10H	10.0	30mA	6ns	45mA	-0.4mA	1.19	1.07	.96	.86

Socket

Part No.	Description	1	10	100	1000
133006	14-pin full can oscillator socket, low profile soldertail	$.59	$.45	$.39	$.35

Part Number Color Code
New Sale Refurbished Closeout

Photo Transistors *General Purpose (6-Pin DIP) Single & Dual Channel*

SALE

Fig. 1

Fig. 2

- Base lead connected • NPN output transistor
- I_{CEO} (dark) Vce = 10V: 50nA max.
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

* 2 independant isolators in one package, 8-pin DIP

Part Number	Product Number	Fig.	Curr. Transfer Ratio (Min%)	Cont. Fwd. Curr. Max. (mA)	Vce (Sat) Max. (V)	Pricing 1	10	100	500
40985	4N25	1	20		0.5	$.29	$.25	$.22	$.19
41005	4N26	1	20	50	(I_F = 50mA)	.29	.25	.22	.19
144240	4N27	1	10		(Ic = 2mA)	.25	.19	.17	.15
41013	4N28	1	10			.29	.26	.23	.21
41056	4N35	1	100	50	0.3 (I_F = 10mA) (Ic = 5.0mA)	.35	.29	.25	.19
24900	MCT2	1	20	50	0.4 (I_F = 16mA)	.24	.22	.20	.15
24918*	MCT6	2			(Ic = 0.2mA)	.59	.55	.49	.45
172187	H11AX	1	10	10	0.4 (I_F = 10mA) (Ic = 0.5mA)	.49	.44	.39	.36

Photo Darlingtons *With Base Connection (6-Pin DIP)*

41021/41030:
- Photo Darlington transistor detector base lead connected
- BV_{CEO} Ic =1mA: 30V min.
- Current transfer ratio I_F=10mA V_{CE} = 10V
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

184735: • BV_{CEO} Ic =10mA: 25V
- Current transfer ratio: I_F=1mA Vce = 5V

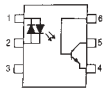
Part Number	Product Number	Curr. Transfer Ratio (Min%)	Cont. Fwd. Curr. Max. (mA)	Vce (Sat) Max. (V)	Pricing 1	10	100	500
41021	4N32	500	80	1.0 (I_F = 8mA)	$.29	$.25	$.22	$.19
41030	4N33			(Ic = 2mA)	.29	.25	.22	.19
184735	H11B1	500	100	1.0 (I_F = 1mA) (Ic = 1mA)	.37	.33	.29	.27

Schmitt Trigger *Single Channel (6-Pin DIP)*

- Microprocessor compatible
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	Threshold Current R_L = 270Ω Vcc = 5V Turn-On (max)	Turn-Off (min)	Output Volt (low) R_L=270Ω Vcc=5V Max. (V)	Pricing 1	10	100	500
113988	H11L1	1.6mA	0.3mA	0.4	$.89	$.79	$.69	$.59

AC Input Isolator *Single Channel (6-Pin DIP)*

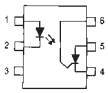


- Isolation test voltage: 7.5k V-P; 5.3k Vrms
- V_F (LED) I_F =10mA: 1.5V max.
- BV_{CEO} Ic = 1mA: 30V min.

Part Number	Product Number	Curr. Transfer Ratio (Min%)	Cont.Fwd.Curr. Max. (mA)	Vce (Sat) I_F=10mA Ic=0.5mA	Pricing 1	10	100	500
18825	H11AA1	20	100	0.4V (max)	$.52	$.41	$.38	$.34

Photo SCR *Single Channel (6-Pin DIP)*

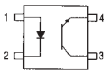
SALE



- Infrared LED emitter and light activated SCR
- Isolation test voltage: 7.5k V-P; 5.3k Vrms
- Continuous forward current: 60mA max.

Part Number	Product Number	Input Trig.Curr.(max) V_{TM} = 3V	Peak Off St.Rev.Curr.(max) V_{DRM}=rated R_{GK}=10kΩ	Pricing 1	10	100	500
18833	H11C3	14mA	200nA	$.79	$.72	$.64	$.57

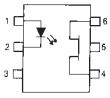
Transistor Slotted Interrupter *Single Channel (4-Pin DIP)*



- With mounting tabs
- V_F = 1.7V max. @ 60mA

Part Number	Product Number	BV_{CEO} Ic = 1mA	BV_{CEO} I_E = 100μA	I_{CEO} (max) V_{CE} = 25V Ih = 0	Pricing 1	10	100	500
114091	H21A1	30V min	6.0Vmin	100nA	$.83	$.75	$.65	$.59

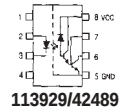
FET Coupler *Single Channel (6-Pin DIP)*



- Optically coupled pair with symmetrical bilateral silicon detector
- On state resistance I_F = 16mA; I46 = 100μA: 200Ω max.
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	Output Brkdwn Volt. I_{46}=10μA	Cont. Fwd. Curr. Max. (mA)	Off State Curr. I_{46} = 15V	Pricing 1	10	100	500
113996	H11F1	30V (min)	60	50nA (max)	$2.75	$2.49	$2.25	$1.95

Transistor Couplers *Single Channel (8-Pin DIP)*

42471

113929/42489

- Isolation voltage: 2.5k Vrms min.

42471: High speed
- Propagation delay time t_{PHL}: 0.8μs max.

113929: High speed, high gain
- Propagation delay time t_{PHL}: 25μs max.

42489: High speed, high gain
- Propagation delay time t_{PHL}: 10μs max.

113911: Very high speed logic
- Propagation delay time t_{PHL}: 75ns max. • LSTTL/TTL compatible

113911

113911

Part Number	Product Number	Curr. Transfer Ratio (Min%)	Specified Input Current (mA)	Typical Data Rate (NRZ)	Pricing 1	10	100	500
42471	6N136	19	16	1Mbits/s	$.95	$.85	$.75	$.65
113929	6N139	400	0.5	300kbits/s	.99	.95	.85	.75
42489	6N138	300	1.6	300kbits/s	.89	.80	.75	.65
113911	6N137	700	5	10Mbits/s	1.09	.95	.85	.79

Zero Crossing Triac Couplers *Single Channel (6-Pin DIP)*

- Performs the function of a zero voltage crossing bilateral triac driver
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

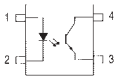
Part Number	Product Number	Input Trig. Curr. V_{TM}=3V (Max)	Cont. Fwd. Curr. Max (mA)	Peak Block Volt. Min (V)	Pricing 1	10	100	500
26294	MOC3031	15mA		250	$1.19	$1.09	$.99	$.89
113953	MOC3032	10mA	50	250	.95	.84	.76	.68
113961	MOC3042	10mA		400	1.15	1.05	.95	.85
133874	MOC3063	5mA		600	1.49	1.25	1.09	.99

Triac Couplers *Single Channel (6-Pin DIP)*

- Infrared emitter and light activated silicon bilateral switch
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	Input Trig. Curr. V_D=3V (Max)	Cont. Fwd. Curr. Max (mA)	Peak Block Volt. Min (V)	Pricing 1	10	100	500
26278	MOC3010	15mA		250	$.49	$.45	$.39	$.35
95020	MOC3011	10mA	60	250	.55	.49	.45	.35
95038	MOC3021	15mA		400	.75	.69	.55	.45

ISOCOM Photo Transistor *Low Input (4-Pin DIP)*

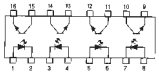


- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	BVceo Ic = 1mA	Curr. Trans.Ratio Min (%) Vce=0.4V I_F=0.5/1mA	VBR I_R = 10μA	Pricing 1	10	100	500
138069	ISP817-3	70V	70/100	10V	$.99	$.89	$.79	$.65

ISOCOM Transistor/Detector *Quad Channel (16-Pin DIP)*

SALE



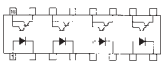
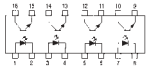
- High Isolation voltage/CTR/sensitivity
- 4 independent isolators in one package
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	Curr. Trans. Ratio (Min%) I_F = 10mA V_{CE} = 10V	Cont. Fwd. Curr. Max. (mA)	Pricing 1	10	100	500
114083	ISQ203	225-450	50	$2.95	$2.49	$1.95	$1.75
114075	ISQ204	200-400		2.25	2.02	1.82	1.63

ISOCOM Photo Darlington & Transistor/Detector *(16-Pin DIP)*

- Isolation test voltage: 7.5k V-P; 5.3k Vrms
- NPN transistor • 1.17V_F @ 10mA (typical)
- Continuous forward current (max.): 50mA

160362: Photo darlington
160338: Photo transistor/detector

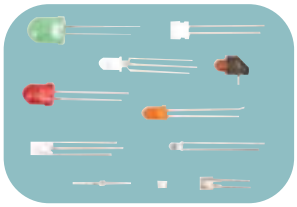

160362

160338

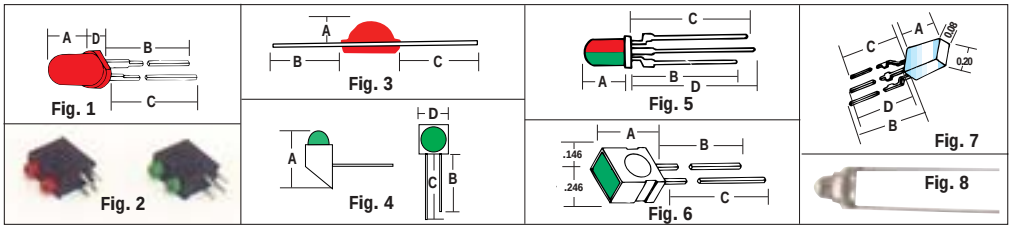
Part Number	Product Number	Curr. Transfer Ratio (Min%)	BV_{CEO} (Ic = 1mA)	Vce (Sat) I_F=10mA; Ic=2mA	Pricing 1	10	100	500
160362	PS2502-4	200	40V	1.0V max.	$2.49	$2.25	$1.95	$1.75
160338	PS2501-4	80-6000	80V	0.3V max.	1.55	1.39	1.25	1.15

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Call for OEM PRICING – we carry major manufacturers.





Standard-Output LEDs

- Typical DC forward current 20mA

✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
26745	MV50	3	Red	Water clear	T 3/4	.083/2.1	0.06	0.25	0.25	—	0.11	1.7 @ 20	1.4 @ 20	660	$.39	$.32	$.25	$.20
176532	MV50G	8	Green	Water clear	T 3/4	.069/1.7	0.06	0.40	0.40	0.05	0.08	2.1 @ 20	300 @ 20	568	✳	.10	.09	.08
175708	HMLP-6014	8	Orange Red	Red diffused	T 3/4	.080/1.66	0.58	0.40	0.40	0.55	0.09	1.7 @ 20	1.4 @ 20	660	✳	.10	.09	.08
134869	RRL5621	3	Orange Red	Red diffused (5V)†	T 3/4	.083/2.1	0.09	0.37	0.65	—	0.10	5.0 @ 8	1.2 @ 8	650	✳	.15	.12	.09
114673	LH2043	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	1.05	0.03	0.07	2.8 @ 20	12.0 @ 10	697	✳	.12	.09	.05
114681	LVG2043	1	Green	Water clear (BG209)	T1	.119/3	0.14	0.98	1.05	0.03	0.07	2.8 @ 20	120.0 @ 20	563	✳	.15	.12	.09
175679	LTL-232	1	Green	Green clear	T1	.119/3	0.17	0.69	0.76	0.03	0.08	2.1 @ 20	120.0 @ 20	563	✳	.12	.10	.07
136493	LT0333-41	1	Yellow	Yellow clear (BY209)	T1	.119/3	0.20	0.95	1.00	0.04	0.10	2.1 @ 20	19.0 @ 20	585	✳	.19	.15	.12
137411	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	1.03	0.04	0.10	5.5 @ 20	7.0 @ 20	430	2.49	2.25	1.99	1.70
34606	LSG2040	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	1.10	0.03	0.08	2.8 @ 20	15 @ 10	560	✳	.15	.10	.06
34657	LY2040	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.76	0.04	0.08	2.8 @ 20	6.5 @ 10	585	✳	.15	.10	.06
34622	LR2040	1	Orange Red	Red diffused (XC209R)	T1	.119/3	0.14	1.09	1.14	0.04	0.09	2.0 @ 20	1.5 @ 10	655	✳	.15	.10	.06
94529	LH2040	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	1.13	0.03	0.07	2.0 @ 20	2.7 @ 20	700	✳	.19	.15	.12
123941	521-9478	1	Green/Yellow	White diff. bi-color/bi-state[1]	T1	.119/3	0.18	0.86	0.93	0.03	0.08	2.6 @ 10	2.0 @ 10	565/585	✳	.29	.25	.19
94553	LHG2062	1	Red/Green	White diff. bi-color/bi-state[1]	T1	.119/3	0.18	1.06	1.12	0.03	0.08	2.8 @ 20	3.0 & 15 @ 10	697/565	✳	.19	.15	.12
136282	LXH240LIID	2	Orange Red	Red diffused dual	T1	.119/3	0.36	0.13	0.13	—	0.10	1.8 @ 5	1.0 @ 2	635	✳	.10	.08	.07
136274	LA44B/2G	2	Green	Green diffused dual	T1	.119/3	0.36	0.13	0.13	—	0.10	2.1 @ 25	15.0 @ 20	565	✳	.29	.25	.19
104248	LA93B/H-1	4	Red	Red diffused (XC410R)	T1 3/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.8 @ 20	6.5 @ 10	697	✳	.19	.15	.12
104264	LA93B/Y-1	4	Yellow	Yellow diffused (XC410Y)	T1 3/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.8 @ 20	2.5 @ 10	585	.39	.35	.29	.19
104256	LA93B/G-1	4	Green	Green diffused (XC410G)	T1 3/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.2 @ 20	6.0 @ 10	570	.29	.25	.19	.12
34745	LH3333	1	Red	Water clear (XC554R)	T1 3/4	.197/5	0.30	1.00	1.12	0.04	0.08	2.8 @ 20	7.5 @ 10	697	✳	.15	.10	.08
11797	HPQLMPD141	1	Red	Water clear (BR5704)	T1 3/4	.197/5	0.29	1.05	1.11	0.03	0.07	2.0 @ 20	80.0 @ 20	660	✳	.17	.10	.07
175695	LTL-425B	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.07	1.15	0.03	0.08	2.1 @ 20	220.0 @ 20	595	✳	.10	.09	.08
137613	LSB3333	1	Blue	Water clear	T1 3/4	.197/5	0.34	0.98	1.03	0.04	0.08	5.5 @ 20	190.0 @ 20	430	2.75	2.49	2.25	1.95
134332	LT18B3-81UR	1	Blue	Water clear	T1 3/4	.197/5	0.30	0.93	1.00	0.04	0.10	5.0 @ 20	630.0 @ 20	428	2.95	2.75	2.25	1.95
11359	LG3333	1	Green	Water clear (BG5704)	T1 3/4	.197/5	0.30	1.04	1.12	0.04	0.07	2.1 @ 20	40.0 @ 20	555	✳	.19	.12	.08
153154	LVG3333	1	Green	Water clear	T1 3/4	.197/5	0.36	0.90	0.95	—	0.10	2.2 @ 20	300.0 @ 20	568	.29	.25	.19	.15
175687	LTL-10234	1	Green	Green clear	T1 3/4	.197/5	0.24	1.07	1.14	0.05	0.07	2.0 @ 20	40 @ 20	555	✳	.19	.12	.08
138691	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	1.03	0.06	0.08	5.5 @ 20	10.0 @ 20	430	2.75	2.49	1.95	1.75
34761	LG3330	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.88	0.04	0.09	2.8 @ 20	12.0 @ 10	565	✳	.12	.10	.07
107393	LE3330	1	Orange Red	Orange diffused (XC556A)	T1 3/4	.197/5	0.30	1.02	1.08	0.04	0.08	2.8 @ 20	12.0 @ 20	635	✳	.17	.13	.10
34825	LY3330	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.84	0.03	0.07	2.8 @ 20	0.5 @ 10	585	✳	.15	.10	.06
94511	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.86	0.04	0.08	2.8 @ 10	4.0 @ 10	697	✳	.15	.13	.09
34796	LR3330	1	Orange Red	Red diffused (XC556R)	T1 3/4	.197/5	0.30	0.62	0.68	0.04	0.08	2.0 @ 20	1.5 @ 10	655	✳	.15	.10	.06
135597	LTL307E	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	1.00	1.05	0.03	0.07	2.8 @ 20	19.0 @ 10	635	✳	.09	.08	.07
94561	LFG3360	1	Green	Green diff./flashing (XC5408)	T1 3/4	.197/5	0.30	1.05	1.11	0.04	0.08	1.2 @ 20	17.0 @ 20	565	.55	.49	.45	.35
34690	LFH3360	1	Red	Red diff./flashing (XC5410)	T1 3/4	.197/5	0.30	0.94	0.98	0.04	0.07	1.2 @ 20	2.8 @ 20	697	.49	.45	.39	.29
138860	LFH3363	1	Red	Water clear/flashing†	T1 3/4	.197/5	0.35	1.06	1.15	0.04	0.10	3-15 @ 20	7.5 @ 20	697	.39	.35	.32	.29
34673	LHG3392	5	Red/Green	White diff. bi-color/tri-state[1]	T1 3/4	.197/5	0.30	1.02	1.05	1.12	0.03	2.8 @ 20	3.0 & 12 @ 10	697/565	.29	.25	.19	.12
34711	LEG3362	1	Red/Green	White diff. bi-color/bi-state[1]	T1 3/4	.197/5	0.30	1.01	1.06	0.04	0.09	2.8 @ 20	4.5 @ 20	695/565	.29	.25	.22	.17
119634	LHR3930	1	Red	Red diffused Jumbo	T2 1/2	.315/8	0.44	0.84	1.00	—	0.07	2.4 @ 20	100.0 @ 20	660	.29	.26	.23	.17
137621	LVG3930	1	Green	Green diffused Jumbo	T2 1/2	.315/8	0.43	1.04	1.09	0.07	0.07	1.7 @ 20	40.0 @ 20	565	✳	.44	.24	.20
98984	LVG3630	1	Green	Green diff. XJumbo (XC10G)	T3 1/4	.394/10	0.40	1.07	1.17	0.12	0.08	2.8 @ 20	40.0 @ 20	565	✳	.21	.19	.17
138683	LHR3630	1	Red	Red diff. XJumbo (XC10RB)	T3 1/4	.394/10	0.40	1.04	1.08	0.07	0.10	1.5 @ 20	200.0 @ 20	660	.29	.25	.19	.15
98992	LY3630	1	Yellow	Yellow diff. XJumbo	T3 1/4	.394/10	0.54	1.04	1.11	0.08	0.08	2.1 @ 20	8.0 @ 20	585	.29	.25	.19	.15
104889	LEG5292*	7	Red/Green	White diff. bi-color rect.	2 x 5	—	0.27	1.02	1.05	1.13	0.08	2.2 @ 20	3.5/6 @ 10	695/570	✳	.10	.09	.08
94545	LG25030*	6	Green	Green diff. rect. (XC57124G)	3.5 x 6	—	0.26	1.06	1.11	—	0.08	2.2 @ 20	5.0 @ 20	565	.35	.27	.22	.16
34850	LT7341R-81*	6	Orange Red	Red diffused rectangular	3.5 x 6	—	0.27	0.85	0.93	—	0.07	2.0 @ 20	10.1 @ 20	635	.39	.32	.25	.20

1 Reverse polarity to change color † Has internal current limiting resistor * For mounting Hardware see page 30

Part Number Color Code
New Sale Refurbished Closeout

- Typical DC forward current 20mA

✳Prepackaged: please order in increments of 10, 100 or 1000

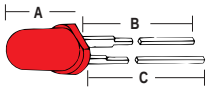


Fig. 1

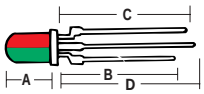


Fig. 2

152864

151415

Ledtech is a QS9000 and ISO-9000 Certified Company

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Dia. (inch/mm)	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
156929	LT0321-41-HE	1	Green	Green diffused	T1	.118/3	0.16	0.88	0.94	—	0.10	2.1 @ 20	13.3 @ 20	567	✳	$.15	$.12	$.09
156937	LT0331-41	1	Yellow	Yellow diffused	T1	.118/3	0.16	0.88	0.94	—	0.10	2.1 @ 20	11 @ 20	585	✳	.15	.12	.09
156945	LT0362-25-D61	2	Red/Green	White diff. bi-color tri-state	T1	.119/3	0.16	0.87	0.94	1.0	0.08	2.1 @ 20	14/3 @ 20	700/567	.29	.25	.19	.15
156953	LT0373-41	1	Red Super Brt.	Water clear	T1	.119/3	0.21	1.07	1.14	—	0.08	1.7 @ 20	600 @ 20	660	✳	.15	.12	.09
152768	LT0324-41	1	Green	Green clear	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	20 @ 20	567	✳	.12	.09	.07
152750	LT0344R-41	1	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	23.5 @ 10	635	✳	.12	.09	.07
152784	LT0341R-41	1	Orange Red	Red diffused	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	6.9 @ 10	635	✳	.12	.09	.07
152792	LT1833-81M1	1	Yellow Super Brt.	Water clear	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.1 @ 20	420 @ 20	595	.35	.29	.25	.19
152821	LT1821-81-HE	1	Green	Green diffused	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.2 @ 20	100 @ 20	567	✳	.15	.12	.09
156961	LT1823-81-HE	1	Green	Water clear	T1 ¾	.197/5	0.34	0.87	0.97	—	0.10	2.2 @ 20	500 @ 20	567	✳	.15	.12	.09
152830	LT1831-81UR	1	Yellow Ultra Brt.	Yellow diffused	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.1 @ 20	400 @ 20	595	.49	.45	.39	.29
152856	LT1841R-81	1	Orange Red	Red diffused	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.1 @ 20	10.3 @ 10	635	✳	.12	.10	.08
152864	LT1873-81	1	Red Super Brt.	Water clear	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	1.7 @ 20	1000 @ 20	660	✳	.19	.17	.13
152805	LT1873-81-UR	1	Red Ultra Brt.	Water clear	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	1.9 @ 20	2000 @ 20	660	.35	.29	.25	.19
156970	LT1873-UR-C07	1	Red Ultra Brt.	Water clear (wide angle)	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	1.9 @ 20	2112 @ 20	660	.35	.29	.25	.19
White Diffused Backlight																		
151415	LTIF24-A2-S1	–	Green	Backlight, white diffused	2.05"L x 0.78"H x 0.09"T						8-pin	6.0 @ 20	6.0 @ 20	567	2.95	2.49	1.95	1.49

LED Accessories

LED Mounting Hardware

† **95521:** for use with P/N 104889, 94545 and 34850, pg 29

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

95513 23077 95521

Part No.	Product No.	Description	Color	Mounting Hole Dia.	Panel Thickness	Pricing 1	10	100	1000
95513	LMH100	T1 snap-in	black	.185"	up to .070"	✳	$.13	$.12	$.11
23077	LMH200	T1¾ ring & clip	black	.257"	up to .125"	✳	.12	.10	.08
95521	LMH250†	Rect. snap-in	black	.306" x .202"	up to .092"	✳	.12	.10	.08

T1 & T1¾ Cliplite® LED Mounting Hardware

- Material: lens – polycarbonate; spacer – nylon
- Increases brightness up to 125% and viewing angle with either diffused or nondiffused LEDs
- Devices mount on .375" centers
- Helps guard against electrostatic discharge up to 16kV while affording the LED physical protection

29612

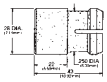


Figure 1 (5mm)

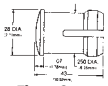


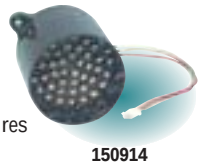
Figure 2 (5mm)

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	Description	Color	Figure	Mounting Hole Dia.	Panel Thickness	Pricing 1	10	100	1000
124919	SML190RTP	T1	Red	1	.25"	.063" –.125"	✳	$.04	$.03	$.02
14277	CTP280	T1¾	Clear	1	.25"	.063" –.125"	.25	.22	.19	.15
29612	RTP280	T1¾	Red	1	.25"	.063" – .125"	.26	.23	.20	.18
124927	CLB300CTP	T1¾	Clear	2	.25"	.031" – .25"	.25	.22	.19	.15
124951	CLB300RTP	T1¾	Red	1	.25"	.031" – .25"	✳	.04	.03	.02

Cluster-Type T1¾ LED Lamps

- Cluster-type red/green T1¾ LEDs
- Lens: water clear
- 660nm for red/570nm for green
- Common anode • 3 lead wires


150914

150922:
- Vf @ If: 10V @ 20mA
- 8 green/6 red
- 1950 mcd @ 20mA • 7" lead wire
- Size: 1.02"Dia. x 1.51"L

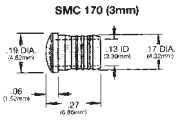
150914: • Vf @ If: 20.5V @ 40mA
- 30 green/20 red • 12,000 mcd @ 40mA
- 16" lead wire • Size: 2.07"Dia. x 1.98"L

Part No.	Product No.	Mounting Hole Dia.	1	10	100
150922	LCR2614B-79	M3	$4.59	$4.15	$3.79
150914	LCR5250A-79	M4	21.95	19.95	17.95

T1 Cliplite® Lens

- Use with P/N 143087 LED T1 cable assembly (right)

✳Prepackaged: please order in increments of 10, 100 or 1000

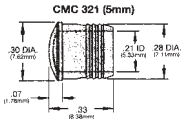


Part No.	Product No.	Color	1	10	100	1000
143183	SMC170CTP	Clear	✳	$.22	$.17	$.14

T1¾ Cliplite® Lens

- Use with P/N 143036 and 143052 LED T1¾ cable assemblies (right)

✳Prepackaged: please order in increments of 10, 100 or 1000



Part No.	Product No.	Color	1	10	100	1000
143132	CMC321CTP	Clear	✳	$.25	$.22	$.19

Design Engineer's 139 Piece LED Hardware Assortment Kit

Allows you to mount LEDs for different applications and designs. Eliminates soldering, shrink tubing and terminal crimping.

- 139 piece hardware kit for T1 and T1¾ LEDs
- Clear plastic case w/ dividers
- Size: 8.5"L x 4.5"W x 1.5"H

Includes: LED panel lenses and mounts	• Colors: clear, red, yellow, green and blue • Shapes: round, square • Retainers
Pre-wired solderless LED interconnection	• Varied lengths • Standard header pin connector termination • Crimp-type removable connector pins
LED PCB mounts, sockets and standoffs	• Vertical and horizontal mount • Various height LED standoffs • SMT-type connectors • Through-hole type connectors • Resistor-type connectors

SALE

Part No.	Description	1	10
140759	LED hardware kit	$18.65	$16.76

Conxrite® Cable Assemblies for T1 and T1¾ LEDs

T1 LED Cable Assembly

- Use with lens P/N 143183 (left)

Part No.	Prod. No.	Cable Lgth.	1	10	100	1000
143087	BE2108	8.5" ..	$1.49	$1.25	$1.09	$.99

T1¾ LED Cable Assemblies

- Use with lens P/N 143132 (left)

Part No.	Prod. No.	Cable Lgth.	1	10	100	1000
143036	CE2108	8.5" ..	$1.49	$1.25	$1.09	$.99
143052	CE2118	18"	1.75	1.35	1.07	.88

High-Output LEDs

See page 30 for LED Mounting Hardware

- Typical DC forward current 20mA

Fig. 1

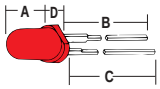


Fig. 2

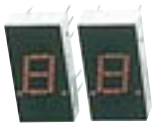
Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
142885	CLP1309-U	1	White	Water clear	T1	.119/3	0.22	0.84	0.90	0.04	0.08	3.6 @ 20	2300.0 @ 20	—	$4.49	$3.95	$3.55	$3.20
142893	CLP1509	1	White	Water clear	T1 3/4	.197/5	0.34	0.79	0.88	0.04	0.08	3.6 @ 20	3700.0 @ 20	—	4.49	3.95	3.49	2.95
183231	T18W133196	1	White	Water clear	T1 3/4	.197/5	0.30	1.06	1.12	0.04	0.08	3.6 @ 20	3000.0 @ 20	—	3.25	2.95	2.59	2.25
197683	BVT5E1QT4ER	1	Orange-Red	Red transparent	T1 3/4	.197/5	0.29	1.08	1.11	0.04	0.08	2.3 @ 20	4650.0 @ 20	634	.79	.71	.64	.58
197659	BVT529QT3F	2	Orange-Red	Red transparent oval		—	0.30	1.05	1.11	—	0.08	2.3 @ 20	3600.0 @ 20	629	.79	.71	.64	.58
153138	LT2KJ3-UR-S14	1	Orange	Water clear	T1 3/4	.197/5	0.36	0.90	0.95	—	0.10	2.4 @ 20	2500.0 @ 20	621	.49	.44	.39	.35
197616	BVU5E1QH4E	1	Red	Water clear	T1 3/4	.197/5	0.30	1.05	1.10	0.07	0.08	1.8 @ 20	2180.0 @ 20	630	.39	.35	.31	.27
131895	TLSH180P	1	Orange	Water clear	T1 3/4	.197/5	0.39	0.80	0.86	0.06	0.10	2.1 @ 20	7000.0 @ 20	623	2.49	2.25	1.75	1.49
197624	BVU5E1BA4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.06	1.12	0.04	0.08	3.5 @ 20	10000.0 @ 20	470	3.19	2.89	2.59	2.29
183222	MCDL513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.02	1.13	0.04	0.08	5.0 @ 20	3000.0 @ 20	470	3.25	2.95	2.59	2.25
183214	MCDPG503PCI	1	Green	Water clear	T1 3/4	.197/5	0.30	1.04	1.09	0.04	0.08	3.5 @ 20	2200.0 @ 20	515	3.25	2.95	2.59	2.25
153146	LT2K33-URP-8	1	Yellow	Water clear	T1 3/4	.197/5	0.36	0.90	0.95	—	0.10	2.4 @ 20	9300.0 @ 20	595	.59	.55	.49	.45
197641	BVT529T13E	2	Yellow	Yellow transparent oval	—	—	0.29	1.04	1.09	—	0.08	2.3 @ 20	7800.0 @ 20	590	.69	.62	.56	.49
197675	BVT5E1TT4E	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.08	1.13	0.04	0.08	2.3 @ 20	2800.0 @ 20	592	.69	.62	.56	.49

LED Displays

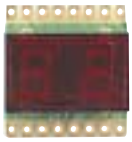
The general advantages of LED displays compared to incandescent types include:

- Lower power consumption • Longer lifetime (averaged more than 300,000 hours) • Compact size suitable for instrumentation and graphic representations

Soldering: • Soldering bath: not more than 5 seconds @ 260°C • Soldering iron: not more than 3 seconds @ 300°C under 30W


24740 & 24782

18753


27545

161509

17187

24723

18737

32951

118906

SALE

7-Segment Displays

✳ Prepackaged: please order in increments of 10, 100 or 1000

Part Number	Mfrs. New Product Number	Jameco's Old Product Number	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
24731	LSD3021-11	MAN71	.300"	Red	CA	11	1.9 @ 20	0.3 @ 20	697	RHDP	$.99	$.85	$.69	$.55
24740	LSD3221-11	MAN72	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	.89	.79	.72	.64
151976	LTS312AY	3005-03	.300"	Yellow	CA	11	2.8 @ 20	2.0 @ 10	585	LHDP	.89	.75	.65	.49
24782	LSD3211-11	MAN74	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75	.65	.49
27545 †	NSN373	NSN373	.300"	Red	2-digit CC	16	1.7 @ 10	1.6 @ 20	660	—	✳	.03	.02	.01
161509	LN524YA	—	.430"	Yellow	2-digit CA	10	2.2 @ 20	0.6 @ 5	590	RHDP	.26	.23	.20	.18
17187	LSD5051-11	CSS5103H1-21	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
17208	LSD5061-11	FND507	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
104213	LSD5124-10	LTS5301R	.560"	Orange Red	CA	10	2.0 @ 20	2.4 @ 20	635	RHDP	.79	.69	.59	.45
24715	LDD5121-20	CSD524H-22	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
24723	LDD5111-11	MAN6740	.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
24694	LDD5124	CSD524E-33	.560"	Orange Red	2-digit CA	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.59	1.49	1.35	1.19
24707	LDD5114-20	CSD525E-63	.560"	Orange Red	2-digit CC	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.35	1.15	.85	.75
161488	LN516YK	—	.560"	Yellow	CC	10	2.2 @ 20	0.8 @ 10	590	RHDP	1.39	1.25	1.15	.99
18737	LSD816-11	LTS3401LE	.800"	Orange Red	CA	13	1.6 @ 20	0.9 @ 20	655	RHDP	1.25	1.05	.79	.59
18753	LSD8151-10	LTS3405	.800"	Red	CC	13	2.1 @ 20	1.0 @ 20	697	LHDP	1.95	1.75	1.59	1.45
176559	C8021-1	—	.800"	Green	CC	13	2.0 @ 20	0.9 @ 20	568	RHDP	.49	.42	.37	.33
97172	LSD10061-10	CSS1014H	1.0"	Red	CA	10	2.1 @ 20	2.0 @ 20	697	RHDP	1.39	1.19	.89	.79
97199	LSD23265-10	CSS2314D	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	4.75	3.83	3.19	2.79
97201	LSD23255-10	CSS2315D	2.24"	Red	CC	10	1.7 @ 20	21 @ 20	660	RHDP	4.49	3.95	3.25	2.95
105591	LSD40054-20	CSS4013E	4.0"	Orange Red	CC	10	2.0 @ 20	1.8 @ 20	635	RHDP	9.49	8.29	7.49	6.49

Dot Matrix Displays

Part Number	Mfrs. New Product Number	Jameco Sockets	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
173833	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	$7.95	$7.29	$6.45	$5.79
32951	TIL311	37161	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35	12.92	11.62
118906	LTP747R	37161	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	—	1.95	1.75	1.49	1.25
183265	LMD5821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	—	4.95	4.49	3.95	3.49

† PC board mounted * CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

Scott Edwards Electronics, Inc.

Serial LCD Modules

- Includes instruction codes for character generation, cursor control, printing, etc. (examples for Stamps in PBASIC included)
- One-year warranty

Ideal for use w/ BASIC Stamps (pg 169), 80C52-BASIC controllers (pg 14) and PCs!

16 characters x 2 lines Integrated Display

- Terminal style 1200–9600bps serial input with 16-byte input buffer
- Four inputs for switches/ buttons that can be read via the serial connection
- EEPROM storage of settings, six custom characters, and a text screen that can be automatically displayed at startup (splash screen)
- Serial control of the standard LED backlight
- Low current draw; 5mA (backlight off) to 40mA (backlight on and bright)
- Power requirement: 4.8 – 5.5VDC @ 5mA (recommend P/N 164101, pg 71)
- Module size: 3.2"L x 2.0"W x 0.5"T

Part No.	Description	1	10	25
150990	LCD module.	$59.95	$53.95	$47.95

16 characters x 2 lines LCD Serial Backpack®

- High-contrast supertwist display
- Serial "backpack" accepts RS232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 – 5.5VDC @ 3mA (recommend P/N 164101, pg 71)
- Module size: 3.1"L x 1.4"W x 0.7"T

Part No.	Description	1	10	25
133129	LCD module	$54.95	$49.95	$44.95

20 Characters x 4 Lines Graphics LCD

- 120 x 32 pixel graphics screen
- Terminal style 2400 or 9600 bps serial input
- EEPROM stores text font and 6 full-screen images
- Supports multiple fonts and font sizes
- Included utility program lets you create and download pictures and fonts
- Power requirement: 9V battery or 5V power supply (recommend P/N 164101, pg 71)
- Module size: 3.1"L x 1.9"W x 0.8"T

Includes: Battery snap connectors, sample programs and manual on disk

Part No.	Description	1	10
158166	20 x 4 serial LCD display	$129.95	$116.95

40 characters x 4 lines LCD Serial Backpack®

- High-contrast supertwist display with unique "big character" mode – prints 1" numbers and letters automatically
- Serial input at 1200, 2400, 4800 or 9600 bps
- Power requirement: 5VDC @ <10mA (recommend P/N 164101, pg 71)
- Module size: 7.5"L x 2.2"W x 0.9"T

Part No.	Description	1	10
136485	40 x 4 serial LCD display	$179.95	$162.95

16 Characters x 2 Lines Serial LCD Module

- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using same 2 wire interface
- Backlight supply current: 40mA typical
- Power requirement: 5VDC @ 9mA (recommend P/N 164101, pg 71)
- Display size: 2.5"L x 0.7"W
- Module size: 3.2"L x 1.5"W x 0.8"T
- Weight: 0.6 lbs.

Includes: Manual and software

Part No.	Description	1	10	25
174166	16 x 2 w/ interface	$59.95	$54.95	$49.95

20 x 4 Serial LCD Modules

150957

157323

- 20 characters x 4 line display with large digit mode
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0"L x 1.0"W
- One-year warranty

Includes: Manual and software

150957: 20 x 4 Serial LCD Module
- Power requirement: 5VDC @ 10mA typical (recommend P/N 164101, pg 71)
- Module size: 3.9"L x 2.4"W x 0.7"T
- Weight: 0.9 lbs.

157323: 20x4 Serial LCD Module with keypad Interface
- Power requirements: 5VDC @ 16mA typical (recommend P/N 164101, pg 71)
- Module size: 3.7"L x 2.4"W x 1.1"T
- Weight: 0.6 lbs.

Part No.	Description	1	10	25
150957	LCD module	$89.95	$80.95	$72.95
157323	Module w/ interface	109.95	99.95	89.95

"We're here to provide the support you want!"

- **Low price Guarantee**
- **30-day Money Back Guarantee**
- **Order 24/7/365 Days**
- **Same Business Day Shipping Until 6:00 p.m. EST**

20 x 4 LCD Serial Display

SALE

- Terminal style serial input
- Character display type
- 20 characters x 4 lines
- White EL backlight
- Low power 3V design
- 5 x 8 dot matrix
- Super twisted nematic display
- Gray display color mode
- Module size: 3.5"L x 2.0"W x 0.3" Thick

Part No.	Description	1	10	25
181809	LCD module	$62.85	$56.56	$50.90

Graphics LCD Serial Display

40 characters x 8 lines Maximum

- 40 characters x 8 lines max. display with 5 x 7 font
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Pixel layout: 240 x 64 pixels
- Serial input: 1200–19,200bps (jumper configurable)
- Backlight supply current: 160mA typical
- Power requirement: 5VDC @ 31mA typical (recommend P/N 164101, pg 71)
- Display size: 5.2"L x 1.5"W • Weight: 0.9 lbs.
- Module size: 7.1"L x 2.6"W x 0.7"T

Includes: Manual and software

Part No.	Description	1	10	25
174182	Graphics display	$189.95	$175.95	$159.95

DATA IMAGE

Parallel LCD Display

20 Characters x 2 Lines

SALE

- LCD type: STN gray, reflective
- Character font: 5 x 8 dots
- Logic supply voltage: 7V maximum (recommend P/N 164101, pg 71)
- LCD driver supply voltage: 13.5V maximum
- Viewing angle: 70–90° • Input data: 8-bit
- Module size: 7.1"L x 1.6"W x 0.25"T

Part No.	Product No.	1	10	25
185181	CM2021	$12.95	$11.65	$10.49

LCD Parallel Displays

171715

171723

- 8-bit interface data bus
- Controller: KS0066U or equivalent
- Character font size: 0.125"W x 0.200"H
- Maximum input voltage: 5.3VDC
- Operating input voltage: 5VDC (recommend P/N 164101, pg 71)

171715: 16 Characters x 2 Lines
- 14-pin/terminals
- Display size: 2.5"L x 0.7"W
- Module size: 3.4"L x 1.2"W x 0.5"T

171723: 20 Characters x 2 Lines
- 16-pin/terminals
- Display size: 3.3"L x 0.7"W
- Module size: 4.6"L x 1.5"W x 0.4"T

Part No.	Product No.	1	10	25
171715	AC162A	$17.95	$15.95	$14.29
171723	AC2 02A	22.95	19.95	17.95

Point Six 16 x 4 Parallel LCD Module

- 16 x 4 character display (.78"H)
- Character font: 5 x 8 dots
- Input data: 40-bit or 8-bit interface available
- Display size: 2.4"L x 1.0"W x 0.06"T
- Module size: 3.4"L x 2.4"W x 0.25"T

Requires: 4.5V @ 2mA wall transformer (recommend P/N 164101, pg 71)

Part No.	Description	1	10	25
151933	16 x 4 parallel LCD	$24.95	$22.49	$19.95

20 Characters x 4 Lines Serial VFD Display

- 20 characters x 4 lines with large digits & bar graph mode
- Bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and scroll feature
- Serial input of 1200–19,200bps (jumper selectable)
- Power off supply current: 9mA
- Power requirement: 5VDC @ 275mA typical (recommend P/N 164101, pg 71)
- Display size: 2.8"L x .82"W
- Module size: 3.9"L x 2.4"W x 1.0"T

Includes: Manual and software

Part No.	Product No.	1	10	25
174158	VFD2041	$159.95	$143.95	$129.95

VL 3½ & 4-Digit, 0.5" High Field Effect LCD Displays

- Compatible with socket P/N 78641 (2), pg 50
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Size: 2.0"L x 1.2"H x 0.1"D

17110: 4-Digit LCD

17110

- Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format) and frequency counters

32230

32230: 3½-Digit LCD

- Digital voltmeters, thermometers, pressure gauges, timers, clocks
- Can be used with Intersil's 7106CPL (P/N 43748, pg 7)

Part No.	Description	1	10	25
17110	4-digit LCD w/ pins ..	$12.95	$11.49	$9.95
32230	3½-digit LCD w/ pins	12.95	11.49	9.95

Serial LCD Interface Module

For Parallel LCD Displays with Hitachi 4480 Chipset

- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking, cursor blanking, up-down-left-rightcursor controls
- Size: 1.5"L x 1.0"W

TRISYS

Part No.	Description	1	10	25
157981	LCD serial module	$24.95	$22.49	$19.95

0.6" High 3½-Digit & 4½-Digit LCD Digital Panel Meters

108388 175951 146835

123140

- Single 9VDC operation – recommend P/N 151095, pg 58
- Maximum input: 199.9mVDC
- Accuracy: ±0.5%
- Automatic polarity indication
- Input impedance: >100MΩ
- Size: 2.7"L x 1.7"W

175951: • Includes bezel
146835: • Backlit display • Includes bezel
123140: • Supply voltage: 9-12VDC (recommend 9V battery P/N 151095, pg 58)

Part No.	Description	1	10	25
108388	"1999" LCD DPM ...	$14.95	$13.49	$11.95
175951	"1999" LCD DPM	12.95	11.95	10.95
146835	"1999" LCD DPM	17.95	15.95	13.95
123140	"19999" LCD DPM ...	27.95	24.95	22.49

ME Micro Electronics LCD Dot Matrix Graphic Display

- 128 x 64 dot matrix display
- Display can be programmed to create a variety of sizes
- STN yellow green mode
- Operating voltage: 5V @ 1mA
- Operating current: .8mA on display mode and 1A on access mode (low power consumption)
- 180˚ viewing angle
- Built-in LCD driver IC: KS0708
- Easy interface with 8-bit MPU
- Module size: 3.0"W x 2.0"H x 0.1"T
- Display size: 2.8"W x 1.6"H

Part No.	Description	1	10
163176	Dot matrix display	$44.95	$39.95

Industrial Panel Meter

0 to 1mA DC

- Low cost, high quality
- Basic DC accuracy to 0.3%
- UL recognized
- Direct replacement for: Yokogawa, Modutec, Jewell, WPIC, Hoyt, Crompton, Brighton
- DC Range: 0 – 1mA Taut Band
- Size: 1.5"L x 1.7"W x 1.7"H • Depth: 1.2"

Part No.	Product No.	1	10	25
171897	PMG6S	$12.95	$11.95	$10.95

Toll-Free Technical Support
Just call us at
1-800-831-4242
or email us at
Tech@Jameco.com

Check out our line of Security Cameras and Accessories on pages 165 - 167

5.6" Color TFT Monitor

NTSC Format

NEW

- TFTcolor LCD display
- 75,000 pixel display resolution
- Built-in 1 watt speaker
- Brightness and color adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.9"W x 5.4"H x 1.0"D • Weight: 1.9 lbs.

Requires: 12VDC regulated power supply, not included (recommend P/N 162996, pg 72)

Includes: RCA cable, mounting stand w/hardware

Part No.	Description	1	10
196381	5.6" TFT color monitor ...	$279.95	$259.95

4" TFT LCD Monitor

NTSC Format

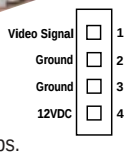
- TFT color LCD
- Resolution 234 x 383 dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position molex type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.

Part No.	Description	1	10
172742	4" color LCD monitor	$159.95	$149.95

4" Active Matrix LCD Monitor

NTSC Format

- TFT active matrix
- Resolution: 234 x 383 dpi; RGB delta configuration
- Input voltage: 12VDC @ 500mA
- Power consumption: <800mA
- Video input: composite video signal I Vp-p; 75Ω
- Backlight: cold cathode filament tube
- 2" long stripped and tinned wires for power and video connection
- Wider view angle • Weight: 1.1 lbs.
- Size: 4.7"L x 3.4"W x 1.5"H (unit) 4.0"L x 3.3"W x 0.7"H (display)



Includes: Manual

Part No.	Description	1	10
154747	4" LCD color monitor	$279.95	$259.95

Part Number Color Code
New Sale Refurbished Closeout

Infrared and Visible Light Emitters and Detectors

- Use for remote control and/or for fiber optics
- **P/N 133946** can be used w/cameras, see pgs 165-166 (peak emission wavelength: 940nm @ If 20mA)

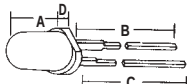


Fig. 1

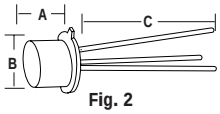


Fig. 2

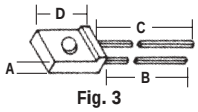


Fig. 3

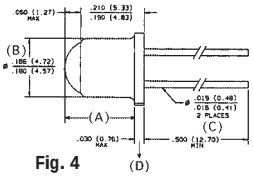


Fig. 4

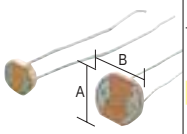
106526

172321

Part Number	Product Number	Fig.	Description	Size	Diameter inch/mm	Dimensions (inches) A	B	C	D	Vf @ If	nm	mWatts	Pricing 1	10	100	1000
112150	TLN100	1	Infrared diode	T1	0.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	1.2	$.39	$.29	$.19	$.12
112176	IRD300	1	Infrared detector	T1	0.12/3	0.18	0.95	0.98	0.03	—	940	—	.39	.29	.19	.12
133946	SLI-0308CP	1	Infrared diode lamp	T1	0.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	100	.75	.65	.49	.39
106526	TLN110	1	Infrared diode	T1¾	0.200/5	0.34	0.78	0.84	0.04	1.6V @ 20mA	940	9	.45	.35	.25	.15
112168	IRD500	1	Infrared detector	T1¾	0.200/5	0.31	1.05	1.10	0.04	—	940	—	.45	.35	.25	.15
120221	BPW77	2	Visible light detector	TO-18	—	0.24	0.19	0.52	—	—	800	—	2.25	1.95	1.75	1.49
172321	OP133	4	Infrared emitter	TO-46	—	0.22	0.18	1.05	0.2	1.8V @ 100mA	935	5	2.25	1.99	1.85	1.65
124020	TP104	3	Photo transistor	Rectangle	0.16/4	0.09	0.45	0.45	0.16	—	850	—	.49	.39	.35	.29

CDS Photocells

- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers • Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C • Cadmium Sulfide (CDS) • Soldering: 230°C for 3 seconds



120301 120299

Part Number	Product Number	Size (inches) A	B	Rating Vp	mW	Resistance (Ω) Light	Dark	Lead Spacing (inches)	Lead Length (inches)	Pricing 1	10	100	1000
136063	CDST18	0.14	0.17	20	40	10k	100k	0.10	1.50	$.59	$.55	$.49	$.45
120310	CDS002	0.14	0.17	150	125	25k	2M	0.10	1.44	1.55	1.39	1.29	1.15
136047	CDST05	0.25	0.29	50	250	10k	100k	0.18	1.50	.45	.29	.19	.15
120301	CDS003	0.25	0.29	200	150	15k	500k	0.20	1.44	1.69	1.59	1.39	1.29
120299	CDS004	0.38	0.43	250	250	12k	1M	0.30	1.44	1.29	.99	.89	.69
136055	CDST08	0.40	0.44	50	250	10k	100k	0.30	1.50	.49	.39	.22	.15

Incandescent Lamps

Incandescent Lamps

- Average life hours 10,000-50,000 hours
- * P/N 141006/141073/141065: C2R filament type

141006 141065

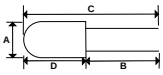


Fig. 1

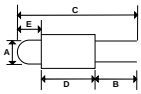


Fig. 2

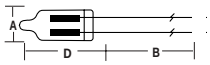
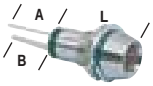


Fig. 3

Part No.	Product No.	Fig.	Size	Description	Dia.(in./mm) A	Dimensions (in.) B	C	D	E	Vf @ If	Pricing 1	10	100	1000
141057	6833	1	T ¾	Incandescent lamp (1" lead wire)	.08/2.2	1	1.2	0.2	—	5V @ 60mA	$1.29	$1.15	$.99	$.95
141065	2200*	1	T1 ¾	Incandescent lamp (1" lead wire)	.19/4.9	1	1.5	0.5	—	5V @ 60mA	.49	.45	.39	.35
141073	2182*	1	T1 ¾	Incandescent lamp (1" lead wire)	.19/4.8	1	1.5	0.5	—	14V @ 80mA	.49	.45	.39	.35
141006	7361*	2	T1 ¾	Incandescent lamp bi-pin base	.18/4.7	0.3	0.8	0.3	0.3	5V @ 60mA	1.29	1.15	.99	.95
27351	NE2	3	—	Neon lamp (req. 150kΩ res. in series)	.197/5	1.2	—	0.38	—	65-120VDC @ 130-470mA/ 65-120VAC @ 150-500mA	..49	.39	.29	.25

Panel Mount LED Indicators

141111

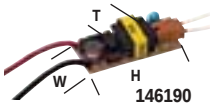
141129/141137


- Easy panel installation • Panel/status/instrument indicators
- Vf @ If: 2V @ 20mA • Color: red • Chrome housing

Part Number	Product Number	LED Size	Dimensions (in.) L	A	B	Mounting Hole	Pricing 1	10	100	1000
141111	L922SRD	T1	.56	.34	.25	.23"	$.79	$.65	$.49	$.39
141129	L913RD	T1	.56	.39	.32	.24"	.89	.79	.65	.45
141137	L917RD	T1 ¾	.70	.55	.47	.31"	.89	.79	.65	.45

JKL Fluorescent Lamp Power Supplies

These DC inverters are designed especially for cold cathode fluorescent lamps.



146190

142252

- Output voltage:

146190: 600Vrms @ 4mA, 30kHz **142252:** 850Vrms @ 5.5A, 20kHz

Part No.	Product No.	Input Voltage	PCB Size (W x H x T)	1	10	25
146190	65010	5VDC @ 200mA	1.7" x 0.8" x .04"	$13.95	$12.49	$10.95
142252	12200	12VDC @ 260mA	1.8" x 0.8" x .04"	15.95	14.49	12.95

JKL Single-Lead Tipless-Type Fluorescent Lamps

World's smallest fluorescent and ultra violet lamps. These energy efficient miniature lighting innovations assure you of bright, uniform output, long-life, cool operation and unmatched reliability, with the convenience of off-the-shelf availability.

142244

146202

142244: compatible with P/N 142252 (left) • Lamp current: 5.0mA (12 max.)
146165: compatible with P/N 146190 (left) • Lamp current: 5.0mA
146202: requires 15kΩ series resistor, runs off line voltage • Lamp current: 3.0mA
* Circuit voltage

Part Number	Starting Volt. (Vrms)	Lamp Volt. (Vrms)	Intensity (nt)	Size (in.) L x Dia.	Pricing 1	10	25
146202	75 (max.)	115*	—	0.9 x .23	$2.69	$2.36	$2.12
142244	390	170	3500	2.0 x .25	13.95	12.49	10.95
146165	1200	520	28000	10.0 x .12	13.95	12.49	10.95

Jameco's Low-Price Guarantee
We'll match the advertised price of any like product. It's that simple!

Rocker Switches

KG Series Non-Illuminated Rocker Switches

- Panel mount • Initial contact resistance: 10mΩ max. • Insulation resistance: 1000MΩ min. @ 500VDC
- Panel cut-out: 1.45"L x 0.83"W • Dielectric strength: 2000Vrms min. between terminals

Part Number	Product Number	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing A	B	Contact Rating	Lead Type	Pricing 1	10	100	250
190991	KG312A2XXA21XX	2	SPST on-off	1.72"	0.79"	1.34"	—	0.27"	15A @ 250VAC	Solder	$2.95	$2.65	$2.39	$2.15
191003	KG412A2XXA21XX	4	DPST on-off	1.72"	0.79"	1.34"	0.43"	0.27"	15A @ 250VAC	Solder	3.49	3.15	2.81	2.55

AS Series Snap-In Rocker Switches

- Panel mount • Initial contact resistance: 10mΩ max. • Insulation resistance: 10,000MΩ min.
- Panel cut-hole: 0.73"L x 0.36"W • Dielectric strength: 1000Vrms min. between terminals

Part Number	Product Number	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing A	B	C	Contact Rating	Lead Type	Pricing 1	10	100	250
191011	AS36S010010	3	SPDT on-on	0.77"	0.41"	0.60"	—	0.19"	—	2A @ 250VAC	Solder	$1.69	$1.49	$1.35	$1.25
191038	AS37S010010	3	SPDT (on)-off-(on)	0.77"	0.41"	0.60"	—	0.19"	—	2A @ 250VAC	Solder	1.95	1.75	1.59	1.45
191046	AS38S010010	3	SPDT on-off-(on)	0.77"	0.41"	0.60"	—	0.19"	—	2A @ 250VAC	Solder	1.95	1.75	1.59	1.45
191020	AS39S010010	3	SPDT on-off-on	0.77"	0.41"	0.60"	—	0.19"	—	2A @ 250VAC	Solder	1.59	1.45	1.29	1.19

FM Series Illuminated/Non-Illuminated Rocker Switches

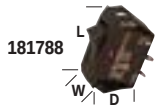
- Panel mount • Insulation resistance: 1000MΩ min. • Initial contact resistance: 20mΩ max.
- Panel cut-hole: 0.76"L x 0.51"W • Dielectric strength: 1500Vrms min. between terminals

*** 191118 (Illuminated):** Dielectric strength: 2500Vrms between terminals

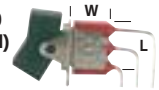
Part Number	Product Number	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing A	B	C	Contact Rating	Lead Type	Pricing 1	10	100	250
191071	FMC12A2200000	3	SPST on-off	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Solder	$.65	$.59	$.49	$.45
191089	FMC32A2200000	3	SPST off-(on)	0.74"	0.50"	0.49"	—	0.28"	—	4A @ 250VAC	Solder	1.25	1.13	.99	.89
191097	FMC62A2200000	3	SPDT on-on	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Solder	.79	.69	.65	.59
191100	FMC92A2200000	3	SPDT on-off-on	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Solder	.89	.79	.72	.65
191118	FML18A276A000*	3	SPDT on-off	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Quick discon.	1.29	1.19	1.09	.95

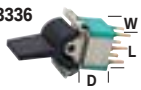
Rocker and Lever Type Switches

- Contact rating: 5A @ 120VAC; 2A @ 250VAC, except P/N 196154: 15A @125VAC; 10A @ 250VAC
- Operating temp.: -30˚ to 85˚C
- Electrical life: 50,000 make and break cycles at full load
- Contact resistance: 10milliΩ typical
- Dielectric strength: 1000 VRMS @ sea level
- Insulation resistance: 10MΩ min., except P/N 196154: 100MΩ min.



NEW





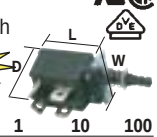
Part No.	Product No.	Pins	Type	Dimensions (ins.) L	W	D	Lead Spacing	Lead Type	Pricing 1	10	100	1000
181788	R13-121A	2	SPST on-off	.88	.47	.71	.265"	Panel mt. solder eyelet	$1.25	$1.05	$.89	$.75
196154	R30NSA	2	SPST on-off	1.07	.42	.77	.437"	Panel mount quick disconnect	1.25	1.19	1.13	1.07
140530	CK7101	3	SPDT on-on	.50	.50	.27	.150"	Right angle PC (vert)	1.49	1.35	1.20	1.10
155045	CK7101A3	3	SPDT on-on	.50	.50	.27	.185"	Right angle PC (horz)	.99	.89	.79	.72
163344	CKD103J5W	3	SPDT on-off-on	.67	.47	.59	.200"	Panel mt. solder eyelet	.99	.89	.79	.69
163336	CK7201J60	6	DPDT on-on	.50	.45	.35	.200"	Panel mount lead pins	.99	.89	.79	.72

Replacement Switches for AT-Style Computer Cases

PC Push-Button Switch

- Alternate action double pole switch
- Contacts rated at 250VAC
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D

SALE

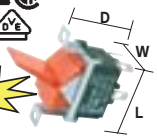


Part No.	Description	Current	1	10	100
127044	PC push button	7.5A ..	$2.49	$2.24	$2.11
174238	PC push button	8A	1.19	1.09	.95

PC Toggle Switch

- Typical uses include many desktop and large tower cases
- Contacts rated at 250VAC
- DPST
- UL/CSA/VDE approved
- Size: 1.2"L x 0.7"W x 1.1"D

SALE

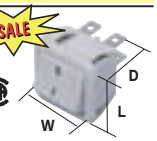


Part No.	Description	Current	1	10	100
127036	PC toggle	10A	$.20	$.19	$.18

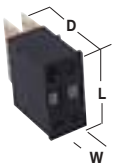
PC Rocker Switch

- For mini-tower cases • DPST
- Contacts rated at 250VAC
- UL/CSA approved
- Size: 0.9"L x 1.2"W x 1.4"D

SALE



Part No.	Description	Current	1	10	100
127028	PC rocker	10A ..	$1.95	$1.29	$.79

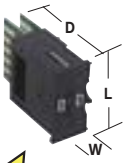


Push-Button Binary Coded Decimal (BCD) Switch

26788 (2 switches shown)

Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) 26817



Pushbutton and Thumbwheel Switch Specifications:

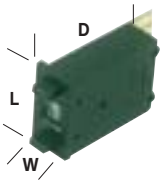
- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Switches snap together
- Break before make
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting

SALE

Part No.	Product No.	Description	Size (L" x W" x D")	Char. Height	1	10	50	100
26788	MX72	10-position push-button	1.3 x 0.4 x 1.0	0.19"	$3.95	$3.75	$3.49	$3.25
26761	MXEP2	End plates for MX72	—	—	.45	.37	.33	.29
26817	MX83	10-position thumbwheel	1.1 x 0.1 x 1.5	0.25"	3.95	3.49	2.95	2.49
26770	MXEP3	End plates for MX83	—	—	.55	.50	.45	.40

Mini Push-Button Binary Switch

- Operating temperature: -10˚C to +65˚C
- 28VDC @ 10A
- 0.12" character height
- Switches snap together
- Break before make
- Positive logic ("0" all open output)
- Size: .59"L x .30"W x 1.0"D



Part No.	Prod. No.	Description	1	10	100
136557	MX061	10 pos. straight	$3.79	$3.41	$3.06

Part Number Color Code
New Sale Refurbished Closeout

Push Button Switches

- Contact rating: 3A @ 125VAC • 2-pins
- Lead type: solder terminal

Mountain Switch

Figure 1

Figure 2

Figure 3

Figure 4

Miniature Soft Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Mounting Hole	Button Color	Pricing 1	10	100	1000
164494	DS450R	1	SPST off-on	1.2"L x .59"Dia.	.175"	.387"	Red	$2.49	$2.29	$2.09	$1.89
164486	DS463R	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Red	2.49	2.29	2.09	1.89
164507	DS463B	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Black	1.65	1.60	1.54	1.48
164523	DS466R	2	SPST off-(on)	1.2"L x .60"Dia.	.196"	.377"	Red	2.49	2.29	2.09	1.89
164558	DS471R	3	SPST off-(on)	1.24"L x .75"W x .6"D	.210"	.382"	Red	1.59	1.49	1.45	1.39

Standard Touch Switches

Part No.	Product No.	Fig.	( ) Momentary	Dimensions	Lead Spacing	Mounting Hole	Button Color	Pricing 1	10	100	1000
164566	MS402R	4	SPST off-(on)	.73"L x .22"Dia.	.078"	.190"	Red	$1.49	$1.39	$1.25	$1.15
164582	DS016B	5	SPST off-(on)	.88"L x .46"Dia.	.220"	.354"	Black	1.49	1.39	1.25	1.15
164611	DS131B	6	SPST off-(on)	.97"L x .80"Dia.	.366"	.647"	Black	1.53	1.47	1.42	1.39
164638	MS3120R	7	SPST off-(on)	1.1"L x .31"Dia.	.175"	.268"	Red	.89	.79	.69	.55
164671	NS801MOB	8	SPST off-(on)	1.1"L x .59"Dia.	.213"	.468"	Black	2.49	2.25	1.95	1.75
106112*	DS412R	9	SPST off-(on)	.63"L x .66"Dia.	.275"	.750"	Red	1.19	.99	.89	.85

* **P/N 106112:** Contact rating: 3A @ 110VAC, solder lugs

Figure 5

Figure 6

Figure 7

Figure 8

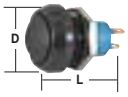
Figure 9

Push Button Switches

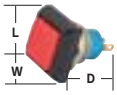
IP Series Push Button Switches

APEM

- Panel mount
- Insulation resistance: 1GΩ min. @ 500VDC
- Dielectric strength: 1500Vrms min.
- Initial contact resistance: 50mΩ max.
- Mounting hole: 1/2"Dia.
- Mechanical life: 1,000,000 cycles min.



171758



171766

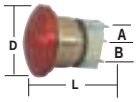
Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing	Contact Rating	Lead Type	Pricing 1	10	100	250
171758	IPR3SAD2	2	SPST off-(on)	0.82"	—	0.46"	0.19"	0.2A @ 250VAC	Solder	$8.95	$7.95	$6.95	$5.95
171766	IPC3SAD6	2	SPST off-(on)	0.82"	0.69"	0.46"	0.19"	0.2A @ 250VAC	Solder	14.95	13.45	12.10	10.89

AV Series Push Button Switches

APEM

- Panel mount
- Mounting hole: 3/4"Dia.
- Insulation resistance: 1000MΩ min
- **171774:** Initial contact resistance: 10mΩ max.
- **191062:** w/ mushroom head actuator
- Dielectric strength: 1000Vrms min.
- Initial contact resistance: 100mΩ max.
- Dielectric strength: 2000Vrms min.

171774

191062


Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing A	B	Contact Rating	Lead Type	Pricing 1	10	100	250
171774	AV191003C900	2	SPST off-(on)	1.20"	—	0.87"	0.37"	—	2A @ 48VDC	Screw	$10.95	$9.85	$8.86	$7.98
191062	AV22PNA62	3	SPDT off-(on)	1.41"	—	1.18"	0.24"	0.35"	5A @ 250VAC	Screw	26.95	24.25	21.85	19.65

Push Button Switches

- Alt = alternate action

✻ **Prepackaged: please order in increments of 10**

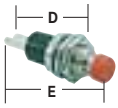


Figure 1

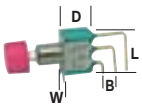


Figure 2

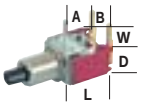


Figure 3

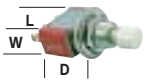


Figure 4

Figure 5

Figure 6

Figure 7

Part No.	Product No.	Fig.	Pins	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (L" x W" x D")	Lead Spacing A"	B"	Contact Rating	Lead Type	Button Color	Pricing 1	10	100	250	OEM 1000
26622	MS102	1	2	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	$.49	$.39	$.32	$.25	$.22
26649	MS103	1	2	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.49	.39	.32	.25	.22
154878	PS11-123	2	3	1/4"	SPST on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	.69	.59	.49	.39	.29
71642	SWB210	3	2	7/32"	SPST off-(on)	.33 x .36 x .20	.20	.20	1A @ 120VAC	PC right angle	Black	1.49	1.25	1.09	.89	.75
121304	CK8121	4	3	1/4"	SPDT on-(on)	.52 x .27 x .38	—	.185	5A @ 125VAC	Solder lugs	White	3.49	2.95	2.49	2.25	1.95
28062	PB126	4	3	1/4"	SPDT on-(on)	.52 x .28 x .38	—	.185	5A @ 120VAC	Solder lugs	Red	3.49	2.95	2.49	2.25	1.95
174414	R13-510A	7	2	1/2"	SPST off-(on)	.67 (L) x .31 (D)	—	.167	3A @ 125VAC	Solder lugs	Red	1.49	1.25	1.09	.89	.75
22200	J1881	5	2†	3/8"	SPST on-off, Alt	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	White	1.09	.89	.75	.59	.55
22218	J1882	5	2†	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	Red	1.09	.89	.75	.59	.55
163352*	23101MX1	6	2	7/16"	SPST off-(on)	1.1 x .51 x .35	—	—	1A @ 28VDC	Solder lugs	White	✻	.04	.03	.02	.01

* **P/N 163352:** Push button door switch † **Lead wires**

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! **Details on page 185**

Miniature Toggle Switches

- Mounting hole diameter: 1/4"

Includes: Mounting hardware

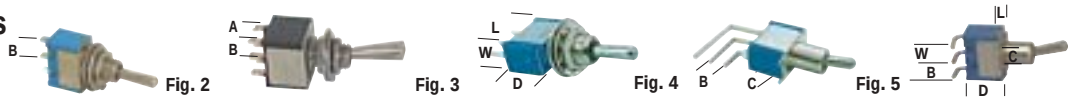


Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5

Part No.	Fig.	Pins	Type ( ) Momentary	Dimensions L" x W" x D"	Lead Spacing A"	B"	C"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
76523	1	2	SPST on-off	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	$1.15	$1.03	$.93	$.75	$.65
21936	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.15	1.03	.93	.75	.65
21910	3	3	SPDT on-off-on	.52 x .32 x .38	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.15	.99	.89	.77	.63
22832	3	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	1.15	.86	.64	.45	.36
75854	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.15	.95	.75	.55	.45
75889	3	3	SPDT (on)-off-(on)	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.15	.95	.75	.55	.45
26331	3	3	SPDT on-on	.52 x .32 x .37	—	.185	—	6A @ 125VAC & 3A @ 250VAC	PC	Round	1.15	1.03	.93	.79	.65
26315	3	3	SPDT on-off-on	.52 x .32 x .37	—	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.15	.99	.89	.77	.63
71597	4	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	5A @ 125VAC & 2A @ 250VAC	PC right angle	Round	1.15	.95	.75	.55	.45
75871	5	3	SPDT on-on	.32 x .52 x .38	—	.185	.20	6A @ 125VAC & 3A @ 250VAC	PC right angle	Round	1.15	.95	.75	.55	.45
22841	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	3A @ 125VAC & 1A @ 250VAC	Solder lugs	Flat	1.29	1.05	.85	.65	.55
21979	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
22859	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	1.29	1.05	.85	.65	.55
105814	2	6	DPDT on-(on)	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.75	1.57	1.41	1.27	1.14
75900	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
21952	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.29	1.16	1.04	.89	.75
75951	2	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
26366	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.29	.95	.73	.52	.44
26358	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.29	1.16	1.04	.89	.75

Subminiature Toggle Switches

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction

Includes: Mounting hardware

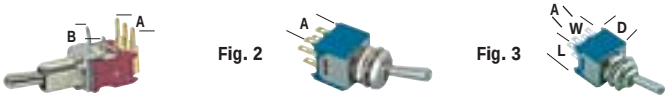
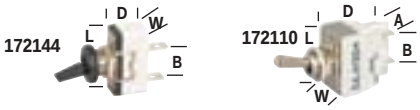


Fig. 1 Fig. 2 Fig. 3

Part No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A"	B"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
106067	1	3	SPDT on-on	.25 x .33 x .40	.20	.10	30mA @ 5VDC	PC right angle	Round	$1.49	$1.25	$1.09	$.89	$.75
72160	2	2	SPST on-off	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.15	.95	.75	.55	.45
75969	2	3	SPDT on-on	.33 x .21 x .33	.10	—	3A @ 125VAC	Solder lugs	Round	1.15	.95	.75	.55	.45
72557	2	3	SPDT on-off-on	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.15	.95	.68	.42	.32
138907	2	6	DPDT on-off-on	.36 x .37 x .33	.10	—	3A @ 120VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
75977	3	6	DPDT on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55

Toggle Switches *(600H/600NH Series)*

- Initial contact resistance: 10mΩ max.
- Insulation resistance: 1000MΩ min. @ 500VDC
- Mounting hole: 1/2"Dia.
- Dielectric strength: 2000Vrms min.



Part Number	Product Number	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A	B	Contact Rating	Lead Type	Pricing 1	10	100	250
172144	631NH/2	2	SPST on-off	1.16 x 0.47 x 0.60	—	0.58"	15A @ 250VAC	Fast-On	$3.95	$3.55	$3.20	$2.89
172110	641H/2	4	DPST on-off	1.17 x 0.84 x 0.80	0.45"	0.58"	15A @ 250VAC	Fast-On	8.39	7.55	6.79	6.10

Full Size Toggle Switches

- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever
- Keyed plate indicates switch position
- Medium duty

Includes: Mounting hardware and on/off plate

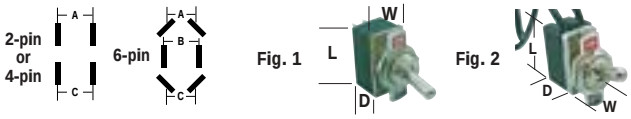


Fig. 1 Fig. 2

Part No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A"	B"	C"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
76241	1	2	SPST on-off	1.00 x .56 x .52	.23	—	—	4A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	$1.25	$1.12	$.99	$.89	$.63
158060	1	4	DPST on-off	1.00 x .56 x .52	.23	—	.23	4A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.15	1.05	.95	.85	.75
76259	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.49	1.19	.95	.75	.59
158078	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	.44	10A @ 125VAC & 6A @ 250VAC	Screw lugs	Round	1.49	1.19	.95	.75	.59
76232	2	2†	SPST on-off	1.00 x .53 x .51	—	—	—	6A @ 125VAC & 3A @ 250VAC	6" lead wire	Round	1.49	1.34	1.19	1.08	.83

† Lead Wires

We'll Send It Today! 99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

Part Number Color Code
New Sale Refurbished Closeout

Tactile Switches

- Switching capacity: 50mA @ 12VDC resistive load
- Bounce time: 10 msec.
- SPST Momentary on
- Contact resistance: 100mΩ

✳ 10 piece minimum

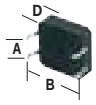
Fig. 1 

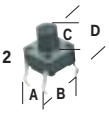
Fig. 2 

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Part No.	Product No.	Fig.	Pins	Dimensions (L" x W" x D")	Lead Spacing A"	B"	C"	Contact Rating	Lead Type	Button Color	Pricing 1	10	100	250
137189	PBS103	1	4	.47 x .47 x .17	.20	.50	—	50mA @ 12VDC	PC	Black	$.35	$.29	$.25	$.15
122972	DTS1212	1	4	.47 x .47 x .18	.20	.50	—	20mA @ 15VDC	PC	Black	.29	.25	.19	.15
119010	KTIIBICM	2	4	.24 x .24 x .15	.17	.25	.03	20mA @ 15VDC	PC	Black	✳	.19	.17	.13
153251	SDTX620K	2	4	.24 x .24 x .15	.17	.25	.06	150mA @ 12VDC	PC	Black	.29	.25	.15	.12
149948	KT11P4CM	2	4	.24 x .24 x .15	.17	.25	.17	20mA @ 15VDC	PC	Black	✳	.19	.15	.12
115086	KIE22	3	2	.24 x .24 x .22	—	.25	—	20mA @ 15VDC	PC	Blue	✳	.19	.11	.09
155248	KRS-3550-BK	4	2	.24 x .14 x .15	—	.27	—	50mA @ 12VDC	PC	Black	.29	.25	.19	.15
155256	KRS-3550-WH	4	2	.24 x .14 x .15	—	.27	—	50mA @ 12VDC	PC	White	.39	.35	.25	.15
175652	PBS35	5	4	.31 x .31 x .10	.20	.35	—	20mA @ 15VDC	PC	Black	✳	.13	.10	.09
155379	KRS-1273B	5	4	.47 x .47 x .14	.17	.53	.14	50mA @ 12VDC	PC	Brown	.39	.35	.31	.26

Tactile Switch Caps

Part No.	Product No.	Fig.	Description	Size (inches)	Material	For Use With	Color	1	10	100	250
155389	KRS-CAP-A	6	Square switch cap	.47"L x .47"W x .16"H	Plastic	P/N 155379	Black	✳	$.19	$.17	$.15
155408	KRS-CAP-B	7	Round switch cap	.5"Dia. x .25"H	Plastic	P/N 155379	Black	✳	.15	.12	.09

OMRON B3F Series Miniature Tactile Key Switches

Miniature, low profile and easy mounting. Ideal for applications such as audio, office and communications equipment, measuring instruments, TVs, VCRs, etc.

- Extended mechanical/electrical service life
- Flux-tight base structure allow automatic soldering of the key switches onto a PC board

162886

188787

Part No.	Type	Operating Force	Dimensions (H x Pitch)	1	25	50	100
162886	B3F-1000	General purpose 100g	4.3 mm x 6.5 mm	$.39	$.31	$.25	$.21
188779	B3F-1002	General purpose 150g	4.3 mm x 6.5 mm	.39	.31	.25	.21
188787	B3F-1050	High-force 260g	7.3 mm x 6.5 mm	.39	.31	.25	.21

OMRON B3S Series Key Switches

Surface mount mechanical key switch for high-density packaging.

- Sealed construction allows immersion cleaning
- Ground terminal available to protect against static electricity

188795

Part No.	Type	Operating Force	Dimensions (L" x W" x H")	1	25	50	100
188795	B3S-1000	General purpose 100g	0.26 x 0.24 x 0.17	$.54	$.44	$.39	$.36
188808	B3S-1002	High-force 260g	0.26 x 0.24 x 0.17	.54	.44	.39	.36

Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction • Terminals: PC pin leads
- Life: 10,000 cycles min.
- Material: 94V-0 grade, UL approved fire retardant plastic
- Max. switching load rating: 25mA @ 24VDC • Op force: 500g-cm max.

139635

139651

Part No.	Product No.	Position	Adjust	Code Type	Size (W" x D" x H")	1	10	50	100
139635	ERD110RS(DRD10)	10	top	BCD	0.39 x 0.39 x 0.20	$2.95	$2.49	$2.25	$1.95
139651	ERD116RS	16	top	Hex	0.39 x 0.20 x 0.39	2.95	2.49	2.25	1.95

OMRON General Purpose Switches

- Terminal type: screw terminal
- Contact form: SPDT
- Service life: 20 million cycles (mechanical); 500,000 cycles (electrical)
- Rated voltage: 15A @ 250VAC
- Dimensions: 1.94"L x 0.69"W x 0.95"H

188015

188023

188031

Part No.	Product No.	Actuator Type	1	10	50	100
188015	Z-15GW22-B	Short hinge roller lever	$6.19	$5.54	$4.98	$4.48
188023	Z-15GW2-B	Hinge roller lever	7.25	6.59	5.95	5.39
188031	Z-15GW-B	Hinge lever	8.95	7.95	7.19	6.49

DIP Switches

SALE

139002

38842

139011

38800

- Switch contacts: SPST • Pre-tinned leads
- Easy activation • 50VDC @ 100mA
- Switches are numbered • Molded construction
- Standard switches have raised lever
- LP switches are flush to casing

Compatible Socket Chart, see page 50for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
109057	112192	38834	37161	38797	38607
38818	51570	38842	37372	38800	39378
139002	51570	139011	37372		
38826	37161	101856	38113		

Part No.	Prod. No.	Pos.	1	10	100	1000
109057	206-2	2	$.69	$.59	$.47	$.36
38818	206-4	4	.79	.65	.55	.45
139002	206-4LP	4	.79	.65	.55	.45
38826	206-6	6	.79	.65	.45	.35
38834	206-7	7	.79	.65	.55	.45
38842	206-8	8	.89	.80	.72	.64
139011	206-8LP	8	.79	.65	.55	.45
101856	206-9	9	.65	.55	.45	.29
38797	206-10	10	.99	.75	.55	.39
38800	206-12	12	1.09	.99	.85	.75

Tri-State DIP Switch

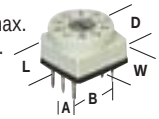
- Switch contacts: bussed, tri-state
- Labeled tri-state positions (+, 0, -)
- Contact rating: 24VDC @ 25mA
- Two isolated busses • Pre-tinned leads
- Compatible socket, use P/N 37372, pg 50

Part No.	Prod. No.	Pos.	1	10	50	100
138991	ETA108E	8	$1.95	$1.75	$1.49	$1.15

APEM Rotary DIP Switches

PT Series Top Adjustment

- Initial contact resistance: >80mΩ max.
- Insulation resistance: >100MΩ min.
- Contact rating: 0.4A @ 24VDC
- Lead type: solder
- 6-pins • PCB mount
- Lead spacing: 0.3" (A); 0.1" (B)
- Dimensions: 0.39"L x 0.39"W x 0.26"D



191126

Part No.	Prod. No.	Type	Pos.	1	10	100	250
191126	PT65101	BCD	10	$2.29	$2.05	$1.85	$1.65
191134	PT65103	Hex	16	2.89	2.59	2.35	2.11

Rotary Switches

- Panel mount • Make before break
- Solder lugs • Layers: 1
- Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ
- Lug size: 0.07"
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565 – plastic casing)
- Mounting hole diameter: 3/8"
- Compatible with Jameco rotary knobs P/N 102787 and 104176, pg 84

101573

Includes: Washer and nut

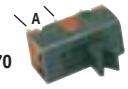
Part No.	Prod. No.	Poles	Pos.	Shaft Size (L" x Dia.")	Pricing 1	10	100
101531	RS0261	1	12	0.46 x 0.25	$1.39	$1.25	$1.12
101573	RS022	2	6	0.46 x 0.25	1.19	.95	.75
101565	RS023	3	4	1.16 x 0.25	1.19	.95	.75
101557	RS024	4	3	0.46 x 0.25	1.09	.81	.60

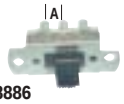
Slide Switches

- Two mounting flanges • Top actuation • UL approved
- Black nylon actuator • Phenolic insulated • Metal housing

† Plastic housing – flanges

SALE


109170


138886

169842

161816

Part No.	Pins	Type	Description	Dimensions L"	W"	D"	Lead Spacing (A")	Contact Rating	Lead Type	Length of Leads	Actuator Height	Pricing 1	10	100	250
109170	3	SPDT on-on	PC mount	.22	.45	.23	.12	0.5A @ 50VDC	Solder pins	.17"	.15"	$.35	$.29	$.22	$.17
138886	3	SPDT on-on	PC panel mount	.55	.90	.29	.25	5.0A @ 125VDC	Solder pins	.38"	.39"	.29	.26	.23	.21
169842	3	SPDT on-on	PC panel mount	.88	.54	.25	.21	10.0A @ 125VDC	Solder pins	.31"	.33"	.55	.49	.44	.39
161816	6†	DPDT on-on	PC mount	.38	.14	.13	.11	0.1A @ 20VDC	Solder pins	.11"	.08"	.49	.45	.34	.24

Temperature Switches

TEXAS INSTRUMENTS

- Operational life: 100,000 cycles
- Contact resistance: 50mΩ or less

SALE

169682

169674

159636

169666

172374

Part No.	Product No.	Temperature	Contact Current	Contact Voltage	Mounting	Terminal	Agency Approval	Pricing 1	10	100	1000
SPST – NC (Normally Closed) Temperature Switch											
169682	T24A145BRF120	145˚C (293˚F)	15A	125V	Flat surface	0.187" Quick disconnect	UL/CUL	$.99	$.89	$.79	$.69
169674	T23A14BRF120	145˚C (293˚F)	15A	125V	Stud mount	M4 x 0.7 Stud	UL/CUL/VDE	.95	.85	.80	.76
159636	7AM202	75˚C (167˚F)	5A	120V	PCB	1.64"L Leads	UL/CSA	.22	.19	.18	.16
169666	T26095	95˚C (203˚F)	13.5A	125V	Panel	0.176" Quick disconnect	UL	.49	.42	.37	.33
SPST – NO (Normally Open) Temperature Switch											
172374	T24B145BSF1-20	145˚C (293˚F)	15A	125V	Flat surface	0.187" Quick disconnect	UL/CUL	.75	.68	.64	.60

SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions • Two keys
- Mounting hole = 0.75" except P/N 106649 = 0.5"

196648: all keys are alike

Includes: Mounting nut

106649

105831/196648

Part No.	Product No.	No. Flat, Dia.	Length	Style	Terminal	Voltage/Current	1	10	50	100
106649	KS4B	2, .21"	.55"	SPST	Barrel	125VAC/3A	$2.95	$2.49	$2.25	$1.75
105831	KS3B	2, .66"	1.48"	SPST	.25" quick connect	125VAC/6A	3.95	3.75	3.25	2.95
196648	3313E-M	2, .66"	1.48"	SPST	.25" quick connect	125VAC/6A	3.95	3.75	3.25	2.95

Magnetic Reed Switches

164081

- NO (normally open) • Contact form: SPST
- Can be activated with ceramic magnet (P/N 167100, pg 175)

171871: • Rating: 500mA @ 100VDC **164081:** • Rating: 1A @ 250VAC; 1A @ 50VDC

Part No.	Product No.	Size (length includes leads)	1	10	100	1000
171871	MKA141011015	1.73"L x 0.1"Dia.	$.99	$.89	$.80	$.73
164081	MRS1	2.35"L x 0.2"Dia.	.99	.85	.65	.49

16-Button Indoor/Outdoor Keypads

- 9-pin 0.100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190 header & 100765 pin
- Size (housing): 4.7"W x 1.7"H x 0.4"T

196171

152063

NEW

✻ **Prepackaged: please order in increments of 10 or 100**

Part No.	Description	1	10	100
196171	2x8 matrix keypad	$14.95	$13.45	$12.10
152063	4x4 matrix keypad	14.95	13.49	11.95
103190	Header housing (10-pin) ✻		.19	.12
100765	Header pin (10 per pack) ✻		.10	.09

12-Button Telephone Keypads

- White plastic, except P/N 171491: metal
- 8-pin .100" header
- Tactile type keypad
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H

153488

Part No.	Description	1	10	100
190561	Numeric keypad	$6.95	$6.25	$5.59
171491	Metal numeric	15.65	14.05	12.64
153488	Alpha numeric keypad	7.95	6.95	6.25

16-Button Numeric Keypad

- 4 x 4 matrix keypad
- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H

Part No.	Description	1	10	100
169244	Numeric keypad	$7.95	$6.95	$6.25

Slotted Optical Switch

- Type N package
- Input diode: forward voltage (V_F) – 1.60V (I_F=10mA); reverse current (I_R) – 100µA (V_R = 3.0V)
- Output phototransistor: breakdown voltage ($V_{BR\ CEO}$) = 30V min.; collector-emitter dark current (I_{CEO}) – 100nA (V_{CE} = 5V)
- Coupled: saturation voltage (V_{SAT}) – 0.40V (I_F = 10mA; Ic=100µA) gap unblocked

Part No.	Product No.	1	10	50
189481	OPB660N	$2.95	$2.65	$2.39

Module Optical Switch

NEW

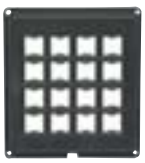
- Type N package
- Input diode: forward voltage (V_F) – 1.60V max. (I_F=20mA); reverse current (I_R) – 10µA (V_R = 5V)
- Collector dark current (I_{CEO}) – 100nA (V_{CE} = 10V)
- C-E saturation voltage (V_{CE}) (sat)): 0.4V max. (Ic = 0.5mA; I_F=20mA)

Part No.	Product No.	1	10	50
196058	ITR-8105	$2.95	$2.65	$2.39

16-Button Keypad With Insertable Legend

NEW

- 4 x 4 matrix
- Rating (resistive): 24VDC @ 10mA
- Contact resistance: 10Ω max.
- Black ABS polycarbonate housing
- 8-pin 0.100" male headers
- Life test: 3,000,000 operations per button
- Size:2.7"L x 2.5"W x 0.4"H



Part No.	Description	1	10	100
195776	16-button keypad	$9.95	$8.95	$7.95

OMRON

SS Subminiature Basic Switches

- Economical, subminiature basic switch offers long service life (30 million operations min.)
- Free from overtravel restrictions, permit easy setting
- Contact form: SPDT
- Dimensions: 0.78"L x 0.25"W x 0.40"H

Fig.1 Fig. 2 Fig. 3 Fig. 4

Part No.	Product No.	Actuator Type	Contact Force	Terminal Type	Contact Rating	Fig.	1	25	50
187661	SS-5	Pin plunger	150g	Solder terminal	3A @ 250VAC	1	$1.29	$1.15	$1.05
187670	SS5-D	Pin plunger	150g	PCB, straight vertical	3A @ 250VAC	1	1.17	1.05	.95
187688	SS-5-F	Pin plunger	50g	Solder terminal	3A @ 250VAC	1	1.45	1.32	1.20
187696	SS-5-FT	Pin plunger	150g	Tab #110 terminal	3A @ 250VAC	1	1.17	1.05	.95
187709	SS-5GL	Hinge lever	50g	Solder terminal	3A @ 250VAC	2	1.59	1.45	1.29
187717	SS-5GL13	Simulated roller hinge	50g	Solder terminal	3A @ 250VAC	3	1.69	1.49	1.35
187725	SS-5GL13T	Simulated roller hinge	50g	Tab #110 terminal	3A @ 250VAC	3	1.12	.99	.91
187733	SS-5GL2	Hinged roller	50g	Solder terminal	3A @ 250VAC	4	1.95	1.75	1.59
187741	SS-5GL2T	Hinged roller	50g	Tab #110 terminal	3A @ 250VAC	4	2.45	2.19	1.95
187750	SS-5GLT	Hinge lever	50g	Tab #110 terminal	3A @ 250VAC	2	1.95	1.75	1.49
187768	SS-5T	Pin plunger	150g	Tab #110 terminal	3A @ 250VAC	1	1.29	1.16	1.05
187645	SS-10D	Pin plunger	150g	PCB, straight vertical	10.1A @ 250VAC	1	2.25	2.05	1.85
187653	SS-10GL	Hinge lever	50g	Solder terminal	10.1A @ 250VAC	2	1.90	1.73	1.57

OMRON

Basic Switches

Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5

- Terminal type: bottom
- Contact form: SPDT
- Dimensions: 1.49"L x 0.41"W x 0.63"H
- Service life: 50 million cycles mechanical; 300,000 cycles electrical

Part No.	Product No.	Actuator Type	Contact Rating	Fig.	1	25	50
187776	V-10G-1C24-K	Pin plunger	10A @ 250VAC	1	$2.39	$2.15	$1.95
187784	V-10G-1C25-K	Pin plunger	10A @ 250VAC	1	2.05	1.90	1.75
187792	V-10G2-1C24-K	Hinge lever	10A @ 250VAC	2	2.59	2.35	2.19
187805	V-10G3-1C24-K	Long hinge	10A @ 250VAC	3	2.75	2.49	2.29
187813	V-10G4-1C25-K	Formed hinged	10A @ 250VAC	5	2.75	2.59	2.35
187821	V-10G5-1C24-K	Short hinge roller	10A @ 250VAC	4	2.95	2.65	2.39
187830	V-10G5-1C25-K	Short hinge roller	10A @ 250VAC	4	2.15	1.95	1.75
187856	V-15G-1C25-K	Pin plunger	15A @ 250VAC	1	1.75	1.59	1.42
187881	V-15G2-1C26-K	Hinge lever	15A @ 250VAC	2	2.59	2.35	2.19
187901	V-15G3-1C26-K	Long hinge	15A @ 250VAC	3	1.95	1.75	1.58
187910	V-15G4-1C25-K	Formed hinge	15A @ 250VAC	5	1.89	1.69	1.52
187936	V-15G5-1C26-K	Short hinge roller	15A @ 250VAC	4	2.15	1.95	1.75

PCB Plunger Switch

Use in Place of Shorting Block

SALE

- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L

✳ 10 piece minimum

Part No.	Description	10	100	1000
172700	Plunger switch .... ✳	$.19	$.17	$.15

Grayhill

SP5T Rotary Switch

SALE

- Panel mount
- Fixed stop
- 1/8" screwdriver slotted shaft
- 36˚ angle of throw
- Single pole, 5-positions
- Contact resistance: 20mΩ max.
- Insulation resistance: 1,000MΩ minimum between mutually insulated parts
- 0.06" solder terminals
- Material: stainless steel shaft and detent contact springs; brass terminals (gold plated over nickel plate); zinc, cadmium plated bushing

Part No.	Product No.	1	10	100
184727	50AB36-01-1-5-F ...	$4.79	$4.35	$3.89

Honeywell

Snap Action Switch

- Contact Form: SPDT
- Contact rating:10A @ 250VAC
- Mechanical life: 10,000,000 cycles
- Electrical life @ full rated load: 1,000,000 cycles
- Actuator type: pin plunger
- 0.220" solder terminal
- Size: 1.1"L x .38"W x .63"H

SALE

Part No.	Product No.	1	10	100
191388	V3-715	$1.95	$1.29	$.79

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

HIGHLY®

Click Action Basic Precision Switches

- 3 terminals: common; normal closed; normal open
- Dielectric strength: 1000VAC 50/60Hz for 1 min.
- Insulation resistance: 100MΩ min. (@ 500VDC)
- Type: NO-NC-common

159599 159572 159581

Part Number	Product Number	Description	Rating	Contact Resistance (initial)	Service Life Mechanically	Service Life Electrically	Terminals Type	Agency Approval	Pricing 1	Pricing 10	Pricing 100
159599	SS0505A	Subminiature	5A @ 125VAC	30milliΩ max.	10 million	200,000	.127" quick discon.	UL	$2.45	$2.25	$1.99
159572	VS10N051C	Micro (T90S1D12-12)	10A @ 250VAC	15milliΩ max.	10 million	100,000	.183" quick discon.	UL/CSA	2.45	2.25	1.99
159581	VS10N021C2	Micro	10A @ 250VAC	15milliΩ max.	10 million	100,000	.183" quick discon.	UL/CSA	2.45	2.25	1.99

OMRON

D2F Series Subminiature Snap-Action Switches

Super compact, for PCB mounting. Ideal for a wide variety of applications from household appliances and office equipment to audio and communications equipment.

- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Long life span assured by high-precision dual spring reverse-action mechanism
- Contact form: SPST
- Flux penetration prevented by using an insert terminal and allowing a height difference at the case bottom

SALE

188816 (Fig. 1) 188841 (Fig. 2)

Part No.	Product No.	Actuator Type	Contact Type	Contact Force	Contact Rating (125VAC/30VDC)	Fig.	1	25	50
188832	D2F-01F	Pin plunger	Microvoltage/current	Low force (75g)	0.1A/0.1A	1	$.95	$.86	$.77
188824	D2F-01	Pin plunger	Microvoltage/current	Standard (150g)	0.1A/0.1A	1	.95	.86	.77
188816	D2F	Pin plunger	General purpose	Standard (150g)	3A/2A	1	.95	.86	.77
188841	D2F-01L	Hinge lever	Microvoltage/ current	Standard (80g)	0.1A/0.1A	2	1.04	.94	.84
188859	D2F-FL	Hinge lever	General purpose	Low force (25g)	3A/2A	2	1.39	1.25	1.12
188867	D2F-L	Hinge lever	General purpose	Standard (80g)	3A/2A	2	1.05	.95	.85

24VDC Liquid Level Sensors

Combine the control box and sensor to activate a water valve. When sensor is triggered by either a tank in full or empty condition, it will trigger an output status change.

176241

176241: Control Box
- Input voltage: 24VDC @ 10A
- Output voltage: 24VDC @ 10A
- Size: 2.1"L x 2.1"W x 1.6"H

SALE

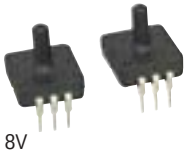
176250 (Full) / 176268 (Empty)
- Maximum contact rating: 10W
- Carry current: 1A
- Max. switching voltage: 100VDC
- Max. switching current: 0.5A
- Maximum contact resistance: 100mΩ
- Size: 2.6"L

176250

Part No.	Description	1	10	25
176241	Control box	$12.95	$11.49	$9.95
176250	Sensor full type	9.95	8.95	7.95
176268	Sensor empty type	9.95	8.95	7.95

Fujikura -1.1 to 2.5 psi Pressure Sensor

- Measurable pressure range: -1.1 to 2.5 psi
- Maximum load pressure: twice of rated pressure
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure • Volt-level output
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x 0.2"H



NEW

Part No.	Product No.	1	10	100
196103	XFPN-025-KPGRNW1	$15.95	$14.35	$12.95

Fujikura 0 to 5 psi Pressure Sensor

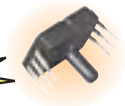
- Maximum load pressure: 10 psi
- Output voltage: 0 – 4.5V
- Operating voltage: 5V @ 10mA
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- Accuracy: ±0.125 psi at 25˚C; ±0.250 psi at -10 to 65˚C
- High level output, on-chip signal conditioned, temperature compensated, and calibrated
- 1/8" diameter tubing is applicable
- Size: 0.6"L x 0.5"W x 0.2"H

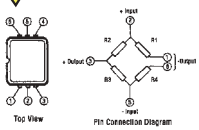
Part No.	Product No.	1	10	100
173657	XFPN-050-KPGT1	$15.95	$14.35	$12.95

Servoflo 0 to 7 psi Pressure Sensor

- Max. load pressure: 10.5 psi
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability • Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5"L x 0.5"W x 0.2"H

SALE





Part No.	Product No.	1	10	100
163731	FPM07PG	$11.95	$10.75	$9.65

GORDOS-Type Digital I/O Modules

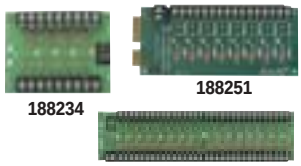
184541

- Industry standard package and pinout • Continuous duty • High immunity to false operation
- Color coded by function • 4,000Vrms optical isolation • Capacitance: 8pF typical (input/output)

Part No.	Prod. No.	Description	Input Voltage	Output Voltage	1	10	50
184541	ODC-5	DC output (red)	5VDC	3 to 60VDC @ 3A	$7.29	$6.85	$6.39
184524	OAC-5	AC output (black)	5VDC	120VAC @ 3A	7.29	6.85	6.39
184583	IDC-5	DC input (white)	3.3 to 32VDC	5VDC	7.29	6.85	6.39
184575	IAC-24	AC input (yellow)	120VAC/VDC	24VDC	9.49	8.54	7.69

GORDOS-Type Digital I/O Module Mounting Boards

- Plug-compatible logic connections on 8, 16, 24 and 32 position boards
- Screw terminal barrier block for load connections
- Resident pull-up resistors
- 5 amp field-replaceable fuses
- LEDs indicate logic status
- Operate with 5, 15 or 24 volt logic supplies
- All even numbered logic connectors are logic ground
- Input and output modules accepted interchangeably
- Captive-screw retaining system for standard size modules and "Quad-Packs"



188234 188251 188277

Part No.	Product No.	Type	Positions	Size (L x W)	Wt. (lbs.)	1	10
188234	21F854	PB-4	4	4.5" x 3.5"	0.3	$34.95	$31.45
188251	21F855	PB-8	8	8.0" x 3.5"	0.4	59.95	53.95
188277	94F4618	PB16T	16	14.1" x 3.5"	0.9	105.95	95.49

HIGHLY 12VDC Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Current consumption: 10mA max.
- Switching frequency: 1.0kHz (P/N 155580); 1.5kHz (P/Ns 155547/155563/155571/167020)
- Sensing target: inductive type – magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected • LED status indicator
- Fast response • 6' long cable • Pre-tinned pigtail

155547 (17mm) SALE 167020 (12mm)

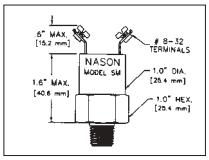
155563 (12mm) 155571 (18mm) 155580 (30mm)

Part Number	Product Number	Output Circuit	Effec. Dist. (Iron)	Std. Target (Iron) (mm)	Size (L" x W" x H")	Mounting Hole (in.)	Pricing 1	10	25
155547	S1805N1	NPN	0-4.0mm	17 x 17 x 1	1.4 x 1.4 x 0.7	0.112	$9.95	$8.95	$7.95
167020	TS1202N1	NPN	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	14.95	13.49	11.95
155563	TS1202P1	PNP	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	14.95	13.49	11.95
155571	TS1805N1	NPN	0-4mm	18 x 18 x 1	1.6"L x 0.70"Dia.	0.7	19.95	17.95	15.95
155580	T3010N2	NPN	0-8mm	30 x 30 x 1	2.0"L x 1.17"Dia.	1.17	20.45	18.39	16.55

NASON 4 psi Pressure Switch

- Snap action switch
- Set point tolerance: ±1 psi or 5%
- Max. operating pressure: 250 psi
- Proof pressure: 750 psi
- Current rating: 5 amps
- Media connection: 1/8" NPT male brass
- Electrical connection: 8-32 screw terminals

SALE



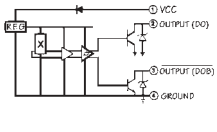
Part No.	Product No.	Circuit	1	10	100
167361	NASM2A4R832	SPST-NO	$9.95	$8.95	$7.95

- We Match Any Advertised Price
- 30-Day Money-Back Guarantee
- Order 24/7/365 Days a Year
- Same Business Day Shipping Until 6:00 p.m. EST

Latched Hall Effect Sensors

- SP (south pole): on; NP (north pole): off
- Supply voltage: 20Vcc

169691: Complimentary open collector, output compatible with all digital logic families



Parameters	P/N 174043	P/N 169691
Supply Current	4mA	25mA
Output Current	20mA	300mA
Max. Operating Point & Max. Release Point (gauss)	≤ 130	≤ 90

Part No.	Product No.	1	10	100	1000
174043	HI-300	$.75	$.59	$.45	$.29
169691	HI-400	.89	.81	.72	.65

Part Number Color Code
New Sale Refurbished Closeout

DC/AC and DC/DC Solid State Relays

- Screw terminal with hardware (except P/N 127790)
- Photo isolation
- Metal mounting base

† Zero crossing

127790 (Fig. 1)

153058 (Fig. 2)

192815 (Fig. 3)

162341 (Fig. 4)

176735 (Fig.5)

173518 (Fig.6)

Part Number	Product Number	Mfr.	Control Voltage	Type	Contact Style	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	Size L" x W" x H"	Pricing 1	10	50	100
Solid State Relays DC/AC Type																
127790	D2W202F	Crydom	3-28VDC	DC/AC	SPST	240VAC	2A	4	1	Solder Lead	—	1.7 x 0.4 x 1.3	**$7.95**	**$7.19**	**$6.49**	**$6.15**
153058	KSD203AC2	COSMO	4-32VDC	DC/AC	SPST	240VAC	3A	4	2	Solder Lead	—	1.4 x 0.3 x 0.9	**9.95**	**8.95**	**7.95**	**7.25**
139053	240D25	OPTO 22	3-32VDC	DC/AC	SPST	240VAC	25A	4	3	Screw Terminal	UL/CSA	2.3 x 1.7 x 1.0	**17.95**	**15.95**	**14.49**	**12.95**
162341	ESR51024-010 †	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**14.95**	**13.49**	**11.95**	**10.49**
162368	ESR51024-025 †	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**19.95**	**17.95**	**15.95**	**14.49**
163281	GA5-4D40	Gordos	3-32VDC	DC/AC	SPST	240VAC	30A	4	4	Screw Terminal	UL/CSA	2.3 x 1.8 x 0.9	**14.95**	**12.15**	**10.15**	**7.95**
162405	ESR51024-040 †	Excel	3-32VDC	DC/AC	SPST	240VAC	40A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**22.95**	**19.95**	**17.95**	**15.95**
105081	615-8500	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	3	Screw Terminal	UL	2.3 x 1.7 x 1.1	**14.95**	**13.49**	**12.95**	**11.49**
192815	KSD240AC8	COSMO	4-32VDC	DC/AC	SPST	250VAC	40A	4	3	Screw Terminal	—	2.3 x 1.8 x 0.6	**22.95**	**19.95**	**17.95**	**15.95**
175214	KB20C02A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 1.5	**7.95**	**6.25**	**5.35**	**4.49**
173518	RLYB4280	Phillips	3-32VDC	DC/AC	SPST	280VAC	4A	4	6	Solder Lead	—	1.7 x 0.4 x 1.5	**9.95**	**8.95**	**7.60**	**6.36**
176698	KB20C06A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	6A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	**9.95**	**8.95**	**7.95**	**6.95**
176719	KD20C40AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	40A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**19.95**	**17.95**	**15.95**	**14.49**
176727	KD20C50AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	50A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**39.95**	**35.95**	**32.35**	**14.49**
176735	KD20C75AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	75A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**34.95**	**31.49**	**27.95**	**24.95**
Solid State Relay DC/DC Type																
172591	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	**$9.95**	**$8.95**	**$7.95**	**$6.95**
175222	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	1	Solder Lead	—	1.5 x 0.3 x 0.9	**12.95**	**11.49**	**9.95**	**8.95**

OMRON Solid State Relays

- Compact dimensions to provide uniform mounting pitch • Pins: 4
- Built-in MOV effectively absorbs external surges • Type: DC/AC
- Operation indicator (red LED) enables monitoring operation
- Protective cover for greater safety

186984

187063

Part Number	Product Number	Control Volt (VDC)	Contact Volt (VAC)	Contact Curr (max)	Size (L" x W" x H")	Pricing 1	25	50
G3NA Solid State Relays								
186984	G3NA-205B-DC5-24	5-24	240	5A	2.28 x 1.69 x 1.06	**$16.95**	**$15.25**	**$13.75**
186992	G3NA-210B-DC5-24	5-24	240	10A	2.28 x 1.69 x 1.06	**16.95**	**15.25**	**13.75**
187004	G3NA-220B-DC5-24	5-24	240	20A	2.28 x 1.69 x 1.06	**19.95**	**17.95**	**15.95**
187021	G3NA-240B-DC5-24	5-24	240	40A	2.28 x 1.69 x 1.06	**36.95**	—	—
G3NE Solid State Relays								
187063	G3NE-205T-USDC5	5	100/240	5A	1.87 x 1.48 x 0.45	**$12.95**	**$11.49**	**$10.49**

CRYDOM Solid State Relays

- DC and AC type
- SPST • Pins: 4

184428: SCR Type SIP

127790

184428

Part Number	Product Number	Control Voltage	Contact Voltage	Contact Current	Type	Size (L" x W" x H")	Pricing 1	10	50
127790	D2W202F	3.0 to 28VDC	240VDC	2A	solder lead	1.7 x 0.4 x 1.3	**$7.95**	**$7.19**	**$6.49**
184428	CX240D5	15 to 32VDC	280VAC	5A	solder lead	1.7 x 0.3 x 1.0	**8.95**	**8.15**	**7.79**

KYOTO DC/DC Solid State Relays

KG Series

- 4 pins • Style: SPST • Type: DC/DC
- Must turn off voltage: 1.0VDC max.
- Input impedance: 1.5kΩ
- Minimum blocking voltage: 140VDC
- Frequency range: 47-70Hz
- Control voltage: 3-32VDC
- Output voltage: 120VDC
- Screw terminal

176655

Part Number	Product Number	Control Voltage	Contact Voltage @ Current	Size (L" x W" x H")	Pricing 1	10	50	100
176647	KG1005D	3-32VDC	120VDC @ 5A	2.3 x 1.7 x 0.9	**$24.95**	**$22.45**	**$20.20**	**$18.18**
176655	KG1010D	3-32VDC	120VDC @ 10A	2.3 x 1.7 x 0.9	**29.95**	**26.95**	**24.29**	**21.89**

Clearance Pricing Saves!

See the yellow highlighted items Details on page 3.

Solid State Relay Heat Sinks

176621

176639

176612

- For SS type KD/KG/KL relays
- 0.24" side mounting blocks • Color: black

176621: Heatsink for 5/10/15A relays
- Size: 4.0"L x 2.8"W x 3.2"H • Weight: 0.8 lbs.

176639: Heatsink for 25A relays
- Size: 4.0"L x 4.0"W x 3.2"H • Weight: 1.1 lbs.

176612: Heatsink for 40A relays
- Size: 5.9"L x 4.0"W x 3.2"H • Weight: 1.6 lbs.

Part No.	Product No.	1	10	50	100
176621	KH114-70	**$6.89**	**$6.20**	**$5.59**	**$5.03**
176639	KH114-100	**8.95**	**7.95**	**6.95**	**6.25**
176612	KH114-150	**13.95**	**12.49**	**10.95**	**9.95**

Solid State Relay Cover

- For SS relay type KD/KG/KL relays
- Clear plastic
- Size: 2.4"L x 1.8"W x 1.0"H

Part No.	Product No.	1	10	50
176701	KSC1	**$.85**	**$.76**	**$.72**

SHARP Solid State Relays

DC to AC

164988: • Output: 125VAC @ 1.5A
- Input volt: 1.2V @ 20mA (If)
- On-state volt: 1.5Vrms
- Zero cross volt: 35V (If = 15mA)

164996: • Effective on-state curr.: 2A rms
- Input voltage: 1.2V @ 20mA
- Output: 265VAC @ 2.5A
- Operating frequency: 45-65Hz
- Isolation volt: 3000V rms

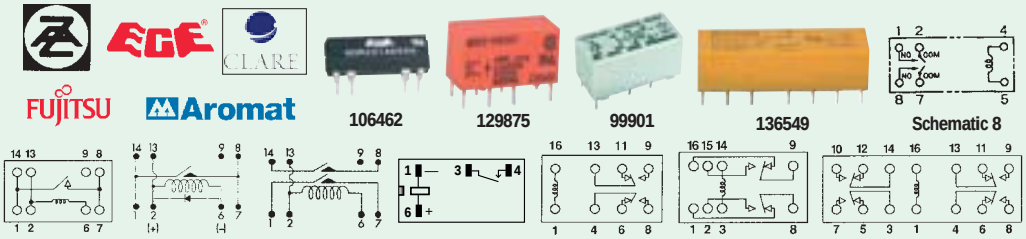
164996

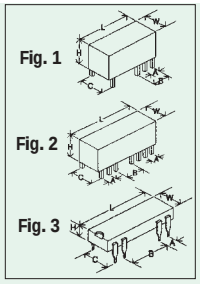
Part No.	Product No.	1	10	50	100
164988	S101S02	**$3.95**	**$3.49**	**$2.95**	**$2.49**
164996	S202TA1	**3.95**	**3.49**	**2.95**	**2.49**

Call for OEM pricing – we carry major manufacturers.

DIP Relays

- Logic control levels
- Moisture resistant
- Compatible with IC sockets
- Long life with reliable operation
- Compact design/ construction
- Excellent for PCB applications



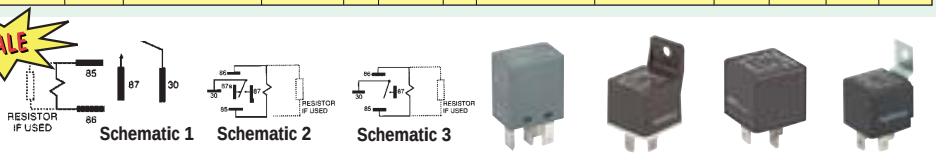


Part Number	Product Number	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Jameco Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing 1	10	50	100
106462	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	$2.25	$1.95	$1.75	$1.49
138430	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.29	1.95	1.75	1.55
167281	G6B2114P-US	OMRON	4	SPST-NO	12VDC	480	250VAC/30VDC	5A	6	37372	1	.78 x .43 x .43	.32 x .42 x .33	2.79	2.52	2.26	2.03
106471	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	2.59	2.39	2.09	1.89
138448	2D1A1200	Excel Cell Elect.	2	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.25	1.95	1.75	1.49
192760	5MBU-5	Fujitsu	8	DPST-NO	5VDC	35	240VAC/24VDC	5A	8	—		1.13 x .50 x .98	.17 x .76 x .28	2.49	2.25	1.95	1.75
138456	202A05	Excel Cell Elect.	3	DPST-NO	5VDC	140	100VDC	0.5A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	3.49	3.15	2.89	2.55
18593	HB25	Aromat	6	DPDT	5VDC	43.4	125VAC/30VDC	1A/2A	8	37372	1	.79 x .43 x .63	.10 x .20 x .30	4.95	4.49	3.95	3.25
129875	DS2EMDC5V	NEC (MR62-5)	5	DPDT	5VDC	62.5	125VAC/30VDC	.6A/1A	8	37372	1	.79 x .40 x .39	.20 x .40 x .30	3.95	3.49	2.95	2.25
173913	AZ831-2C-5DSE	American Zettler	5	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401	1	.79 x .38 x .44	.18 x .28 x .29	1.95	1.75	1.49	1.19
139977	RSB5S	Shin Mei	5	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .40 x .30	2.49	2.25	1.95	1.75
99338	LM12C00	Clare	5	DPDT	6VDC	71	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.25	1.95	1.75	1.49
18577	HB212	Aromat	6	DPDT	12VDC	250	125VAC/30VDC	.5A/1A	8	37372	1	.79 x .44 x .60	.10 x .20 x .30	4.95	4.49	3.95	3.49
99311	DS2Y-S-DC12V	Aromat (NAIS)	5	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	4.95	4.49	3.95	3.49
99901	LX200D00	Clare	5	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	5.95	5.35	4.79	4.29
99320	LM12E00	NEC	5	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.25	1.95	1.49
136549	DS4E-M-DC5V	Aromat	7	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	4.95	4.49	3.95	3.25
176313	DS4E-M-DC12V	Aromat	7	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	7.95	7.15	6.45	5.79
176305	DS4E-M-DC24V	Aromat	7	4PDT	24VDC	1440	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	4.05	3.63	3.26	2.93

Potter & Brumfield Type Plastic Enclosed Construction Relays

SALE

- Dielectric strength: 500VDC (between contact and coil)
- Operating temperature: -35°C to +85°C
- Normally open (NO), normally closed (NC)
- Terminal type: quick connect



171467 (Fig. 1) 171432 (Fig. 2) 171441 (Fig. 3) 171459 (Fig. 4)

Part Number	Product Number	P&B Cross Reference	Figure	Contact Form	Coil Voltage	Coil Ohms	Contact Schematic	Contact Voltage	Contact Current	Pins	Size L x W x H (in.)	Pricing 1	10	50	100
VFM Type Relay															
171467	VFM11F11K01	VFM11F11K01	1	SPST-NO	12VDC	123	1	14VDC	20A	4	.78 x .60 x .87	$.11	$.10	$.09	$.08
VF4 Type Relays															
171459	LD1A-12F	VF481F11S01	4	SPST-NO	12VDC	78	3	14VDC	40A	4	1.1 x 1.1 x 1.0	$2.49	$2.25	$1.95	$1.75
171441	961A-1A12D	VF411F11	3	SPST-NO	12VDC	90	3	14VDC	40A	4	1.1 x 1.1 x 1.0	2.49	2.25	1.95	1.49
171432	961A-1A12DM	VF481F11	2	SPST-NO	12VDC	90	3	14VDC	40A	4	1.1 x 1.1 x 1.0	2.99	2.69	2.42	2.17
171521	LD5F	VF445D11	2	SPDT	5VDC	14	2	12VDC	40A	5	1.1 x 1.1 x 1.0	1.95	1.75	1.49	1.19
148582	LD12F	VF485F11	2	SPDT	12VDC	78	2	12VDC	40A	5	1.1 x 1.1 x 1.0	2.49	2.25	1.95	1.75

Relay Socket w/ Coil Diode

VF4 Series

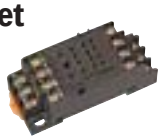
- For use w/ P/N 148582, above
- 12 AWG: 2 black & 1 blue wire
- 18 AWG: 1 black & 1 red wire
- Diode coil suppression
- Contact voltage: 12V • 7.5" wire
- Contact current: 20A

Part No.	Description	1	10	50
170624	Socket relay	$1.95	$1.75	$1.57

Rayex General Purpose Relay Socket

LB4H Socket

- DIN rail snap socket for LB4H relays
- P&B cross reference: PYF14AA



Part No.	Product No.	Pins	1	10	50
175556	PYF14AA	14	$3.95	$3.49	$2.95

Type VF4 Plastic Relay Sockets

SALE

171424 171416 173788

171424: accommodates 12-16 AWG wire
171416: accommodates 18-20 AWG wire
173788: PCB Mount

P&B

Part No.	Product No.	Pins	1	10	50	100
171424	VCF41001	5	$.11	$.10	$.09	$.08
171416	VCF41002	5	.11	.10	.09	.08
173788	VCF41000	5	1.49	1.25	.99	.75

We'll Send It Today
99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Relay Series 250 Sockets

- 250VAC
- Current: 20 amps
- Mounts with #8 screws
- Accepts #6 ring/lug terminals

141145 141153

141145: • Size: 2.0"L x 1.6"W x 0.8"H
141153: • Size: 2.0"L x 1.7"W x 1.2"H

Part No.	Terminals	Pins	1	10	50
141145	Screwdown	8 ...	$4.19	$3.79	$3.39
141153	Screwdown	11	4.95	4.45	3.95

Relay Series 388 Socket

- 250VAC • Current: 20 amps
- Mounts with #8 screws
- Accepts #6/#8 ring/lug terminals
- Size: 3.0"L x 1.4"W x 1.0"H

Part No.	Terminals	Pins	1	10	50
141161	Screwdown	11 ..	$4.29	$3.89	$3.49

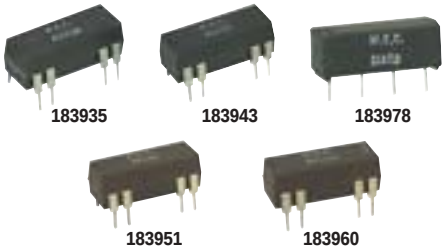
Part Number Color Code
New Sale Refurbished Closeout

Reed Relays

- Coil voltage: 5VDC

***183935:** diode reversed †**183943/183960/183978:** diode

Part Number	Product Number	Magnecraft Cross	Coil Res. Ω	Contact Form	Contact Voltage	Contact Current	Pin	Jameco Socket	Pkg.	Pricing 1	10	50
183951	RP1A5	W107DIP1	500	SPST-NO	200	.5A	8	37161	DIP	$3.49	$3.15	$2.79
183960†	RP1A5D	W107DIP5	500	SPST-NO	200	.5A	8	37161	DIP	5.19	4.69	4.19
183978†	S1A5D	W117SIP6	500	SPST-NO	200	.5A	4	—	SIP	5.19	4.69	4.19
183935*	R1C5DR	W172DIP5	200	SPDT	100	.25A	8	37161	DIP	10.49	9.19	8.25
183943†	R2A5D	W171DIP25	200	DPST-NO	200	.25A	8	37161	DIP	7.95	6.95	6.25

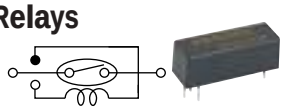


Reed Type Relays

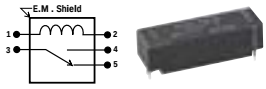
- Dielectric strength: 500VDC (between contact and coil)
- Operating temperature: -35°C to +85°C
- Normally open (NO), normally closed (NC)

SALE

111448



168356



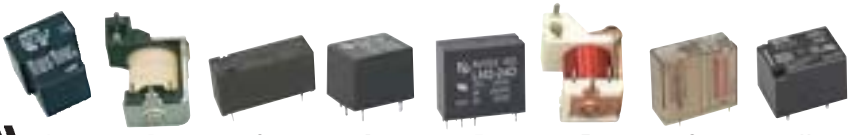
Part Number	Product Number	Manufacturer	Coil Voltage	Coil (Ohms)	Contact Form	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (in.)	Pricing 1	10	50	100
111448	RC108T	Han Kuk	12VDC	550	SPST	250VAC/150VDC	0.1A	4	PCB solder	1.0 x .37 x .38	$1.55	$1.35	$1.09	$.89
168356	R8864-2	ELEC-TROL	12VDC	1080	SPDT	28VDC (max.)	0.25A	5	PCB solder	1.1 x .35 x .32	1.05	.92	.83	.75

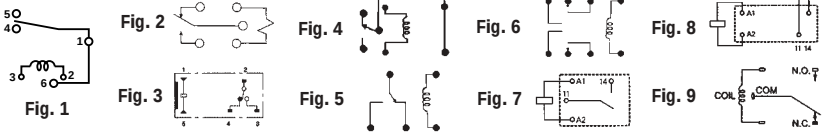
Small High-Current PC Mount Relays

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy is 10 million operations
- Electrical life expectancy is 100,000 operations at rated loads
- Dielectric strength: 1,500Vrms (between contact and coil)

***104926:** Open frame relay
****129349:** Immersion cleanable, plastic sealed case
†**144186**: For use with universal relay card (P/N 128910, pg 173)
††**195856**: High dielectric strength of 4kV w/ 8mm clearance/creepage





Part Number	Product Number	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing 1	10	50	100
145752	T90S1D12-12	T90S1D12-12	1A	SPST	12VDC	155	240VAC	30A	5	1.2 x 1.0 x .77	$2.95	$2.49	$2.25	$1.95
195864	RP838012	—	8G	SPST	12VDC	270	250VAC	12A	4	1.1 x .48 x 1.0	2.95	2.65	2.39	2.15
192778	TN423024	T7NS1D1-24	7F	SPST	24VDC	1600	250VAC/30VDC	7A	4	.82 x .62 x .63	2.25	1.95	1.75	1.49
134949	FKD130PSDC5V	T90S5D12-5	1A	SPDT	5VDC	27	240VAC/28VDC	30A	6	1.3 x 1.1 x .80	2.25	1.95	1.75	1.49
174449	LU-5	T81H5D215	4D	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.95	1.79	1.59	1.39
104926*	733SPDT12VDC	T90N5D12-12	1F	SPDT	12VDC	155	240VAC/28VDC	20A/10A	6	1.2 x .90 x .63	2.49	2.24	2.01	1.81
129349**	832-IC-S	T90S5D12-12	1A	SPDT	12VDC	155	277VAC/28VDC	20A/10A	6	1.2 x 1.0 x .75	2.69	2.42	2.17	1.96
174393	LM1-12D	RKA5DG12	5E	SPDT	12VDC	270	250VAC/30VDC	10A	5	1.2 x .48 x 1.0	1.85	1.67	1.49	1.25
172937	JS1-12V	T72M5D121-12	9H	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.19	1.09	.99	.85
144186†	JZC-22F	VR15M121C	2D	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.25	2.92	2.63	2.36
174431	LEG12F	T7CS5D12	2D	SPDT	12VDC	400	120VAC/24VDC	15A	5	.76 x .62 x .60	1.49	1.29	1.19	1.09
195856††	G6R-1-DC12	—	3C	SPDT	12VDC	650	250VAC	8A	5	1.2 x .39 x .57	3.95	3.55	3.17	2.15
174457	LU-12	T81H5D2112	4D	SPDT	12VDC	720	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.95	1.75	1.58	1.42
173690	L90-24	T90N5D12-24	1B	SPDT	24VDC	660	277VAC/30VDC	20A	6	1.1 x .90 x .55	1.59	1.41	1.27	1.14
173569	L90-24W	T90S5D12-24	1A	SPDT	24VDC	660	277VAC/30VDC	20A	6	1.2 x 1.1 x .77	1.79	1.60	1.44	1.25
174406	LM1-24D	RKA5DG24	5E	SPDT	24VDC	1100	250VAC/30VDC	10A	5	1.2 x .48 x 1.0	1.85	1.67	1.49	1.25
174422	LEG-24	T725D16424	2D	SPDT	24VDC	1600	240VAC/24VDC	10A	5	.76 x .62 x .60	.95	.83	.74	.66
174377	LM2-12D	RKA5DZ12	6E	DPDT	12VDC	270	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.49	2.25	1.95	1.75
174385	LM2-24D	RKA5DZ24	6E	DPDT	24VDC	1100	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.19	1.89	1.69	1.49

T9A Series Relays

Low Cost PC Board or Panel Mount Only

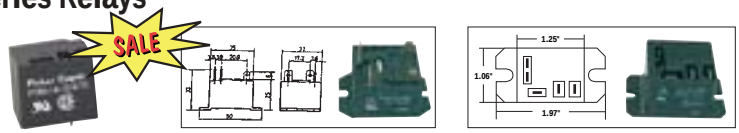
- Mechanical life expectancy is 10 million operations

169463: • Operating temperature: -55˚C to +55˚C
- Dielectric strength: 1200VAC (between open contacts) • UL/CSA approved

137349: • Operating temperature: -40˚C to +70˚C
- Dielectric strength: 1200VAC (between open contacts)

137357: • Operating temp.: -55˚C to +85˚C • Dielectric strength: 1500VAC (between open contacts)

SALE



Part Number	Product Number	Potter & Brumfield Cross Reference	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (in.)	Pricing 1	10	50	100
169463	PTRH-1A-12-S-T2	T9AS1D22-12	SPST (NO)	12VDC	155	120/240VAC	30A	4	.25" disconnect (4)	1.3 x 1.0 x 1.1	$1.25	$1.10	$.99	$.89
137349	949-1A-12D	T9P1D52-12	SPST (NO)	12VDC	120	250VAC/28VDC	30A	4	.25" disconnect (2) .187" disconnect (2)	2.0 x 1.25 x 1.25	2.69	2.39	2.15	1.93
137357	953-IC-12DM	T9AS5D52-12	SPDT	12VDC	155	240VAC/28VDC	20A/10A	5	.1" disconnect (2) .25" disconnect (3)	2.0 x 1.6 x 1.8	3.49	3.14	2.82	2.54

See page 43 for more Relay Sockets!

General Purpose Relays

- DPDT • 8-pins

Pin Type Terminals – Series 78
- Contact voltage: 240VAC

Pin Type Terminals – Series 250
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient temp. operating: -10˚C to +50˚C
- Size: 1.4"L x 1.4"W x 2.7"H

Part Number	Product Number	NTE Cross Reference	Coil (voltage)	Pricing 1	10	50
		Series 78				
172718	SCL12DPDT	K10UP21D1512	12VDC	$4.95	$4.49	$3.95
		Series 250				
139766	BTA1-2C-12VDC	R02-11D10-12	12VDC	$7.95	$7.19	$6.49
139740	BTA1-2C-120VAC	R02-11A10-120	120VAC	7.95	7.19	6.49

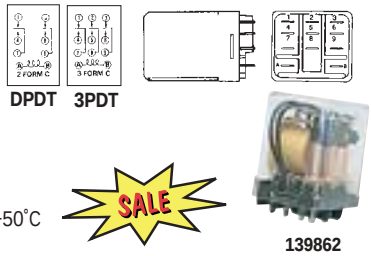
Relay Type Project Cases

Part No.	Product No.	No. of Pins	Compatible Sockets	1	10	100
155096	RC8	8	141145 (pg 43)	$2.25	$1.95	$1.75
155088	RC11	11	141153 (pg 43)	1.45	1.34	1.27

Quick Connect Blade Terminals – Series 388

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accept quick-connect receptacles or direct soldering.

- Contact rating: 120VAC/28VDC @ 13A/240VAC @ 10A; except P/N 184268 240VAC/28VDC @ 10A
- Ambient temp. operating: -30˚C to +50˚C
- Size: 1.5"L x 1.4"W x 2.2"H



Part Number	Product Number	NTE Cross Reference	Coil (voltage)	Style	Pins	Pricing 1	10	50
139862	BTA1-2C-24VDC	R02-11D10-12	24VDC	DPDT	8	$6.95	$6.25	$5.62
184268	GQTPDT12D	KUP14D1512	12VDC	3PDT	10	11.95	10.49	9.29
139854	BTA2-3C-24VDC	R10-14D10-24	24VDC	3PDT	11	6.95	6.25	4.95
139838	BTA2-3C-120VAC	R10-14A10-120	120VAC	3PDT	11	7.95	7.15	6.43

Rayex General Purpose Relays

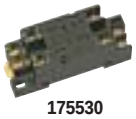
Potter and Brumfield Type LB2 Series

- DPDT • 8-pins
- Contact rating: 240VAC/30VDC @ 12A
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations min. at rated load

Part Number	Product Number	P & B Cross Reference	Coil Voltage	Pricing 1	10	50	100
172718	SCL12DPDT	K10UP21D1512	12VDC	$4.95	$4.49	$3.95	$3.49
175564	LB2-24DS	K10UP11D1524	24VDC	4.75	4.25	3.75	3.25
175572	LB2-110AS	K10UP11A15120	110VAC	4.95	4.49	3.95	3.49

Rayex LB2 Socket

- Din rail snap socket for LB2 relays



Part Number	Product Number	P & B Cross Reference	Pins	Pricing 1	10	50
175530	PTF08AA	27E895	8	$3.95	$3.49	$2.95

Rayex LB2H Series

- Contact rating : 240VAC/24VDC @ 10A • DPDT
- Mechanical life: 10,000,000 operations • 8-pins
- Electrical life: 100,000 operations min. at rated load

Part Number	Product Number	P & B Cross Reference	Coil Voltage	Pricing 1	10	50	100
175581	LB2H-24DS	KHAU11D1124	24VDC	$4.95	$4.45	$3.99	$3.79

Rayex LB2H Socket

- Din rail snap socket for LB2 relays

Part Number	Product Number	P & B Cross Reference	Pins	Pricing 1	10	50
175548	PYF08AA	—	8	$4.75	$4.27	$3.84

Rayex LB4H Series

- Mechanical life: 10,000,000 operations • 4PDP
- Insulation resistance: 1,500MΩ @ 500VDC • 14-Pins
- Electrical life: 100,000 operations min. at rated load
- Contact rating: 240VAC/24VDC @ 5A; except P/N 183011 220VAC/24VDC @ 5A

Part No.	Product No.	P&B Cross Ref.	Coil Voltage	1	10	50	100
183011	GM4PDT12DF	KHAU17D1212	12VDC	$6.29	$5.49	$4.95	$4.49
175601	LB4H-24DS	KHAU17D1224	24VDC	4.95	4.45	3.99	3.59
175610	LB4H-110AS	KHAU17A12120	110VAC	4.25	3.85	3.45	3.25

OMRON Relays and Relay Sockets

LY2 General Purpose Relay

- Arc barrier equipped
- DPDT
- Pins: 8
- Contact voltage: 110VAC/24VDC
- Coil voltage: 24VDC
- Coil current: 10A
- High dielectric strength (2,000 VAC)
- Long dependable service life assured by AgCdO contacts
- Dimensions: 1.10"L x 0.85"W x 1.4"H

Part No.	Product No.	1	10	50
187522	LY2AC24	$7.49	$6.79	$5.95

MK2 General Purpose Relays

- Contact voltage: 250VAC/28VDC
- DPDT • Pins: 8
- Contact current: 10A
- Long life (minimum 100,000 electrical operations) assured by silver contacts
- Built-in operation indicator (mechanical LED)
- Contact operation easily checked by mechanical indicator and/or push-to-test button options
- Conforms to CENELEC standards
- Dimensions: 1.36"L x 1.36"W x 2.07"H

Part No.	Product No.	Coil Volt.	1	10	50
187549	MK2PNSAC24	24	$10.49	$9.49	$8.49
187531	MK2PNSAC120	120 ..	11.49	10.39	9.29

G6B Power PCB Relay

- Contact material: AgCdO
- Carry current: 5A
- Low power consumption of 200mW
- Contact rated load: 5A @ 250VAC, 5A @ 30VDC
- Resistive load (pF=1); 2A @ 250VAC, 2A @ 30VDC
- SPST-NO + SPST-NC • Coil resistance: 480Ω
- Coil voltage: 12VDC • Coil current: 25 mA

Part No.	Product No.	1	25	50
167281	G6B2114PUSDC12 ...	2.79	$2.52	$2.26

Track Mounted Relay Sockets

187581:
- Compatible with G2R-1 series relays, see page 46
- Dimensions: 3.37"L x 0.61"W x 2.40"H

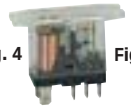
187611:
- Dimensions: 3.09"L x 1.12"W x 1.18"H

Part No.	Product No.	1	25	50
187581	P2RF-05-E	$3.59	$3.25	$2.89
187611	PTF08A-E	4.89	4.39	3.95

Toll-Free Technical Support
Just call us at 1-800-831-4242
or email us at Tech@Jameco.com

Part Number Color Code
New Sale Refurbished Closeout

G2R Power PCB Relays

Fig. 1
Fig. 2
Fig. 3
Fig. 4 
Fig. 5

- Operating frequency: 18,000 operations/hour (mechanical); 1,800 operations/hour (electrical; under rated load)
- Power consumption: approx. 530mW (non-loading DC coil); approx. 0.9 mW (non-loading AC coil)
- Service life: 10,000,000 operations (min.) (AC); 20,000,000 operations (min.) (DC) • Contact voltage: 250VAC/30VDC
- Insulation resistance: 1,000MΩ (min. @ 500VDC) • Contact material: AgCdO
- Size: 1.40"L x 0.51"W x 1.00"H; *except G2R-1-T 1.77"L x 0.55"W x 1.16"H

Part Number	Product Number	Coil Volt.	Coil Res. Ω	Contact Current	Fig.	Pin	Pricing 1	25	50
Sealed SPDT PCB Type									
186669	G2R-14 DC12	12	275	10A	1	5	$3.21	$2.92	$2.63
186677	G2R-14 DC24	24	1100	10A	1	5	3.21	2.92	2.63
Sealed DPDT PCB Type									
186802	G2R-24-AC24	24	260	5A	1	8	$5.79	$5.21	$4.69
186790	G2R-24-AC120	120	6500	5A	1	8	6.69	6.02	5.42
186811	G2R-24-DC12	12	275	5A	1	8	3.49	3.14	2.82
186781	G2R-24-DC24	24	1100	5A	1	8	3.49	3.14	2.82
Semi-Sealed SPST-NO PCB Type									
186685	G2R-1A-E-DC12	12	275	16A	2	6	$3.02	$2.74	$2.46
186693	G2R-1A-E-DC24	24	1100	16A	2	6	3.02	2.74	2.46
Semi-Sealed SPDT PCB Type									
186706	G2R-1-E-AC120	120	6500	16A	2	8	$5.99	$5.39	$4.85
186714	G2R-1-E-DC12	12	275	16A	2	8	3.49	3.15	2.79
186722	GR2-1-E-DC24	24	1100	16A	2	8	3.24	2.92	2.62
SPDT Plug-In Type									
186749	G2R-1-S-AC24	24	260	10A	3	5	$6.10	$5.49	$4.94
186731	G2R-1-S-AC120	120	6500	10A	3	5	6.75	6.07	5.46
184436	G2R-1-S-DC12	12	275	10A	3	5	4.58	4.12	3.72
184444	G2R-1-S-DC24	24	1100	10A	3	5	4.79	4.29	3.89
DPDT Plug-In Type									
186837	G2R-2-S-AC24	24	260	5A	5	8	$6.79	$6.11	$5.50
186829	G2R-2-S-AC120	120	6500	5A	5	8	7.39	6.65	5.98
186845	G2R-2-S-DC12	12	275	5A	5	8	5.29	4.76	4.28
186853	G2R-2-S-DC24	24	1100	5A	5	8	5.29	4.76	4.28
SPDT Quick-Connect Type									
186765*	G2R-1-T-AC24	24	6500	10A	4	5	$5.75	$5.17	$4.65
186757*	G2R-1-T-AC120	120	260	10A	4	5	6.55	5.90	5.31
186773*	G2R-1-T-DC24	24	1100	10A	4	5	4.17	3.75	3.38

G2RL Fully Sealed Power PCB Relays

- Contact voltage: 250VAC /24VDC
- Max operating frequency: 18,000 operations/hour (mechanical) 1,800 operations/hour @ rated load (electrical)
- Insulation resistance: 1,000MΩ min. @ 500VDC
- Life expectancy: 20,000,000 operations @ 18,000 operations/hour (mechanical) • Non-latching
- Size: 1.30"L x 0.50"W x 0.61"H • Power consumption: approx. 400mw

† Class F insulation

186888

186917

Part Number	Product Number	Contact Form	Coil Volt.	Coil Res. Ω	Contact Current	Pin	Pricing 1	25	50
General Purpose									
186888†	G2RL-14-CF DC12	SPDT	12	360	12A	5	$3.19	$2.87	$2.58
186896†	G2RL-14-CF DC24	SPDT	24	1440	12A	5	3.99	3.59	3.23
186968†	G2RL-24-CF DC12	SPDT	12	360	8A	8	3.76	3.39	3.04
186976†	G2RL-24-CF DC24	SPDT	24	1440	8A	8	3.79	3.41	3.06
186861	G2RL-14 DC12	SPDT	12	360	12A	5	3.19	2.87	2.58
186870	G2RL-14 DC24	SPDT	24	1440	12A	5	3.22	2.80	2.60
186941	G2RL-24 DC12	DPDT	12	360	8A	8	3.99	3.59	3.21
186950	G2RL-24 DC24	DPDT	24	1440	8A	8	3.76	3.61	3.19
High Capacity									
186917	G2RL-14-E DC24	SPDT	24	1440	16A	8	$4.09	$3.15	$2.65
186925†	G2RL-14-E-CF DC12	SPDT	12	360	16A	8	4.65	4.18	3.76
186933†	G2RL-14-E-CF DC24	SPDT	24	1440	16A	8	4.65	4.18	3.76

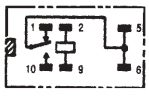
G5LE PCB Relays

- Subminiature "sugar cube" relay • Contact ratings of 10A
- Contact voltage: 120VAC/30VDC • Contact current: 10A/8A
- Withstands impulses of up to 4,500V
- UL class-B insulation certified
- Size: 0.89"L x 0.75"W x 0.65"H

187135

Part Number	Product Number	Contact Form	Coil Volt.	Coil Res. Ω	Pin	Pricing 1	25	50
Flux Seal								
187194	G5LE-1A DC12	SPST-NO	12	360	3	$1.58	$1.43	$1.29
187207	G5LE-1A DC24	SPST-NO	24	1440	3	1.58	1.43	1.29
187151	G5LE-1 DC5	SPDT	5	63	5	1.58	1.43	1.29
187135	G5LE-1 DC12	SPDT	12	360	5	1.58	1.43	1.29
187143	G5LE-1 DC24	SPDT	24	1440	5	1.58	1.43	1.29
Plastic Seal								
187215	G5LE-1A4 DC12	SPST-NO	12	360	3	$1.83	$1.65	$1.48
187223	G5LE-1A4 DC24	SPST-NO	24	1440	3	1.79	1.59	1.49
187186	G5LE-14 DC5	SPDT	5	63	3	1.75	1.57	1.42
187160	G5LE-14 DC12	SPDT	12	360	5	1.79	1.61	1.45
187178	G5LE-14 DC24	SPDT	24	1440	5	1.75	1.57	1.42

G5V Low Signal Relays


G5V1

G5V1

G5V2

G5V2

- High sensitivity: 150 mW nominal power consumption with 96mW pickup power
- Conforms to FCC part 68 voltage surge • Fully sealed construction

G5V-1 series: • Contact rating: 125VAC @ 0.5A/24VDC @ 1A
- Dimensions: 0.49"L x 0.30"W x 0.39"H

G5V-2 series: • Contact rating: 125VAC @ 0.5A/30VDC @ 1A
- Dimensions: 0.81"L x 0.45"W x 0.40"H

Part Number	Product Number	Pins	Coil Voltage	Coil Res. Ω	Contact Form	Pricing 1	25	50
G5V-1 Low Signal Relays								
187240	G5V-1-DC5	6	5	166.7	SPDT	$2.21	$1.99	$1.79
184461	G5V-1-DC12	6	12	960	SPDT	2.37	2.13	1.92
187231	G5V-1-DC24	6	24	3840	SPDT	2.21	1.99	1.79
G5V-2 Low Signal Relays								
187258	G5V-2-DC12	8	12	288	DPDT	$2.68	$2.41	$2.17
184452	G5V-2-DC24	8	24	1152	DPDT	2.68	2.41	2.17

G6 Low Signal Relays

G6A series:

- High sensitivity with pick-up power of approx. 200mW
- Low profile design allows use in 12.70mm PC board rack
- Surge withstand voltage meets FCC Part 68 regulation
- Can be mounted side by side due to low magnetic leakage
- Pins: 8 • Contact voltage: 125VAC/30VDC
- Contact form: DPDT • Dimensions: 0.80"L x 0.40"W x 0.33"H

187266

G6E series:

- High sensitivity with pick-up coil power of 98mW
- Bifurcated crossbar contact assures high reliability
- Minimal loss of latching capability due to highly efficient magnetic circuit
- Pins: 5 • Contact voltage: 125VAC/30VDC
- Contact form: SPDT • Dimensions: 0.63"L x 0.39"W x 0.31"H

187389

Part Number	Product Number	Coil Voltage	Coil Res. Ω	Contact Current	Pricing 1	25	50
G6A Low Signal Relays							
187282	G6A-234PSTUSDC5	5	125	3A	$4.99	$4.45	$3.60
187266	G6A-234PSTUSDC12	12	720	3A	4.45	3.99	3.60
187274	G6A-234PSTUSDC24	24	2880	3A	4.45	3.99	3.60
G6E Low Signal Relays							
187418	G6E134PSTUSDC5	5	125	3A	$3.89	$3.50	$3.15
187389	G6E134PSTUSDC12	12	720	3A	3.89	3.50	3.15
187397	G6E134PSTUSDC24	24	2880	3A	3.89	3.50	3.15
187400	G6E134PSTUSDC248	48	5760	3A	5.95	5.35	4.79

135394 – Electrolytic

135271 – LEDs

169578 – Photocells

18294 – Toy Motors

149649 – Fans

55968 – Spacers

81701 – Cabinet

* LB grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 81701, pg 85

Shaded in pink on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P / N 163213) referenced on the bottom of the page.

Capacitors

Part No.	Product No.	Description	Wt. (lbs.)	1	10
17857	GB100	200 asst. ceramic disc capacitors	0.2	$4.95	$4.49
135335	GB100LB*	1 lb. (813 pcs) asst. ceramic disc caps	1.0	12.95	11.49
17881	GB101	100 asst. mylar capacitors	0.3	5.95	5.35
135458	GB101LB*	1 lb. (440 pcs) asst. mylar capacitors	1.0	14.95	13.49
17911	GB102	100 asst. electrolytic capacitors radial, axial, snap	0.5	4.95	4.49
135394	GB102LB*	1.5 lb. asst. (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5	11.95	10.95
17945	GB103	100 asst. tantalum capacitors (dipped epoxy and solid tubular)	0.1	9.95	8.95

Diodes, Transistors and Crystals/Oscillators

Part No.	Product No.	Description	Wt. (lbs.)	1	10	25
17961	GB107	200 asst. diodes (zener, switching, silicon)	0.1	$5.95	$5.35	$4.79
18171	GB127	100 asst. transistors (NPN, PNP, power)	0.1	5.95	5.35	4.79
114446	GB150	50 asst. crystals/oscillators	0.2	6.95	6.25	5.59

Trimmer and Single-Turn Potentiometers

Part No.	Product No.	Description	Wt. (lbs.)	1	10
18075	GB113	100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)	0.1	$5.95	$5.35
18278	GB174	100 asst. 1/4W & 1/2W single turn pots (100Ω to 5MΩ asst. values)	0.2	6.95	6.25
135407	GB174LB*	1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ asst. values)	1.0	14.95	13.49

Integrated Circuits and Sockets

Part No.	Product No.	Description	Wt. (lbs.)	1	10
17996	GB108	100 asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	0.2	$6.95	$6.25
135280	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0	14.95	12.95
18024	GB109	100 asst. linear series (LM300, 500, 700, 7800, 7900 regulators) DIP, TO-3, TO-220	0.6	7.95	6.95
145242	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 regulators)	2.0	14.95	12.95
114964	GB171	100 asst. microprocessor series (micros, PALS, RAMs, PROMS, EPROMs)	0.7	7.95	6.95
105620	GB120	100 asst. IC sockets (DIP IC, PGA, TO-3)	0.3	5.95	5.35
135386	GB120LB*	1 lb. (260 pcs) asst. IC sockets (DIP IC, PGA, TO-3)	1.0	9.95	8.95

Surprise Computer Products Grab Bag

Best Bargain!

Various electronic components (capacitors, connectors, sockets, LEDs, resistors, diodes, ICs, transistors, pots,oscillators/resonators, inductors, crystals, switches), cables, power supply, transformer, fan, PC board, keyboard and miscellaneous computer products.

Part No.	Product No.	Description	Wt. (lbs.)	1	10
18331	GB190	Component/computer grab bag	20.0	$19.95	$17.95

LEDs and Displays

Part No.	Product No.	Description	Wt. (lbs.)	1	10	25
18041	GB110	100 asst. sizes and colored LEDs (T1/T1 3/4 round and rectangular)	0.1	$5.95	$5.35	$4.79
18323	GB186	500 asst. sizes #18041 LEDs	0.3	19.95	17.95	15.95
135271	GB110LB*	1 lb. (1900 pcs) asst. #18041 LEDs	1.0	39.95	37.95	35.95
18201	GB162	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.5	8.95	7.95	6.95

1/4W, 1/2W Resistors and Photocells

Part No.	Product No.	Description	Wt. (lbs.)	1	10
18104	GB116	200 asst. 1/4 watt resistors (5%/10%)	0.1	$4.95	$4.49
135351	GB116LB*	1 lb. (2200 pcs) asst. 1/4 watt resistors	1.0	17.95	14.95
18139	GB117	200 asst. 1/2 watt resistors (5%/10%)	0.2	6.95	6.25
169578	GB125	100 asst. sizes and values photocells	0.2	7.95	6.95

Switches, Toy Motors and Fans

Part No.	Product No.	Description	Wt. (lbs.)	1	10
18235	GB165	50 asst. switches (toggle, push button, rocker, slide)	0.4	$7.95	$6.95
135378	GB165LB*	1 lb. (135 pcs) asst. #18235 switches	1.0	17.95	15.95
18294	GB182	5 asst. toy DC motors (1.5 – 12VDC)	1.1	4.95	4.49
149649	GB193	5 asst. AC/DC fans (photo above)	4.5	7.95	6.95

Hardware Assortments

• 2-56 • 4-40 • 6-32 • 8-32 • Screws • Plastic
• Nuts • Washers • Steel • Brass • Lock Washers • Aluminum

Part No.	Product No.	Description	Wt. (lbs.)	1	10	25
171571	GB149*	1 lb. (500 pcs) asst. types screws, nuts, washers & lock washers	1.0	$4.95	$4.49	$3.95
171635	GB149LB*	3 lbs. (1400 pcs) asst. types same as P/N 171571 (above)	3.0	11.95	10.95	9.95

Spacers and Standoffs

• Round • Hex • Aluminum • Brass • Steel • Plastic • Nylon

Part No.	Product No.	Description	Wt. (lbs.)	1	10	25
166481	GB440	100 asst. size 4-40 spacers/standoffs	0.5	$6.95	$6.25	$5.59
166490	GB632	100 asst. size 6-32 spacers/standoffs	0.5	6.95	6.25	5.59
55968	GB140	100 asst. sizes 4-40, 6-32, 8-32 round/hex, alum/brass/nylon spacers	0.3	7.95	6.95	6.25
135423	GB140LB*	1 lb. (310 pcs) same as P/N 55968	1.0	17.95	15.95	13.95

Schwab's School Selection

$50.55 Value

What's your suggestion?

Jameco's nine most popular Grab Bags (highlighted on this page) all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. All components are individually bagged. He also recommended a 20-drawer component cabinet with labels (81701 photo above) for storage.

Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

Part No.	Product No.	Description	Wt. (lbs.)	1	10
163213	GB197	Schwab's School Selection	3.3	$39.95	$34.95
81701	CAB20	20-drawer component cabinet	4.7	15.95	13.95

Surprise Component Grab Bag

Our Best Seller!

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).

Part No.	Product No.	Description	1	10	25
135263	GB191LB*	3 lbs. electronic components	$14.95	$12.95	$11.95

Part Number Color Code
New Sale Refurbished Closeout

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

20-drawer component cabinet with every kit!

84970 (IC kit)

84996 (LED Kit)

81832 (Resistor kit)

When your cabinet needs a refill just call 1•800•831•4242

Each Kit includes a 20-Drawer Component Cabinet (81701), 20 clear plastic drawers (85454), 20 clear dividers (85446), 30 adhesive labels for drawers to identify parts in kit, all Electronic Components listed in each kit.

• Cabinet size: 6.0"L x 15.0"W x 7.9"H • Drawer size: 5.5"L x 2.7"W x 1.5"H • Weight: 4.6–6.4 lbs. • Cabinet: ABS-Black • Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit and each group of Components separately packaged.

7400 Series IC Kit

$183 VALUE

Includes 350 pcs. (30 types) 7400 (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	10 each	20 each
7402	7416	7438	74107	74157	7400
7405	7417	7447	74123	74160	7404
7408	7420	7470	74132	74174	7406
7410	7430	7485	74151	74175	7407
7414	7432	7495	74153	74279	7474

Part No.	Description	Wt. (lbs.)	1	10
84953	350 pcs. 7400 IC kit	6.2	**$139.95**	**$125.95**

74LS00 Series IC Kit

$141 VALUE

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	20 each
74LS05	74LS73	74LS125	74LS193	74LS00
74LS10	74LS75	74LS139	74LS240	74LS02
74LS11	74LS85	74LS151	74LS244	74LS04
74LS14	74LS86	74LS155	74LS245	74LS08
74LS20	74LS90	74LS157	74LS273	74LS32
74LS30	74LS93	74LS174	74LS373	74LS74
74LS47	74LS123	74LS175	74LS374	74LS138

Part No.	Description	Wt. (lbs.)	1	10
84961	420 pcs. 74LS IC kit	6.7	**$109.95**	**$99.95**
130391	Refill for 84961 (420-pc.)	2.0	**94.95**	**85.95**

CD4000 Series IC Kit

$99 VALUE

Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
CD4015	CD4024	CD4051	CD4093	CD4001
CD4016	CD4027	CD4069	CD4511	CD4011
CD4017	CD4040	CD4070	CD4538	CD4013
CD4020	CD4046	CD4071	CD4543	CD4049
CD4023	CD4050	CD4081	CD4584	CD4066

Part No.	Description	Wt. (lbs.)	1	10
84970	300 pcs. CD4000 series IC kit	6.1	**$79.95**	**$71.95**
130403	Refill for 84970 (300 pcs.)	1.4	**64.95**	**57.95**

Linear Series IC Kit

$233 VALUE

Includes 480 pcs. (40 types) Linear Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
TL072CP	LM337T	LF412CN	ULN2803A	LM317T
TL074CN	LF353N	LMC555CN	NE5532	LM324N
TL082CP	LF356N	LM556N	7808T	LM339N
TL084CN	LM358N	LM723CN	78L12	LM741CN
MAX232CPE	LM386N-1	LM1458N	7815T	LM555CN
LM301N	LM386N-3	LM1488N	7905T	7805T
LM308N	LM393N	LM1489N	7912T	78L05
LM311N	LF411CN	ULN2003A	7915T	7812T

Part No.	Description	Wt. (lbs.)	1	10
84988	480 pcs. Linear IC kit	6.0	**$189.95**	**$169.95**
130411	Refill for 84988 (480 pcs.)	1.3	**174.95**	**156.95**

Low Profile IC Socket Kit

$42 VALUE

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

10 each	20 each	20 each	50 each	50 each
22LP	18LP	28LP	8LP	16LP
24SLP	24LP	40LP	14LP	20LP

Part No.	Description	Wt. (lbs.)	1	10
85075	300 pcs. LP IC Socket kit	5.5	**$34.95**	**$31.95**

LEDs & LED Mounting Hardware Kit

$85 VALUE

SALE

See pages 29 & 30 for photos and specs

Includes 560 pcs. (20 types) LEDs and mounting hardware

10 each	10 each	10 each	10 each	100 each
BG209	BR5704	XC209G	XC556G	LMH100
BR209	CTP280	XC209Y	XC556Y	LMH200
BY209	HLMT-CL00	XC410G	XC5410	XC209R
BG5704	XC52RG	XC410R	XC5491	XC556R

Part No.	Description	Wt. (lbs.)	1	10
84996	560 pcs. LED & Hardware kit	5.0	**$59.95**	**$49.95**

1/8 Watt Carbon Film Resistor Kit

$33 VALUE

Includes 540 pcs. (30 values) 1/8 watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2Ω	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
108329	540 pcs. 1/8 watt Resistor kit	4.9	**$27.95**	**$24.95**
108302	Refill for 108329 (540 pcs.)	0.2	**12.95**	**11.49**

1/4 Watt Carbon Film Resistor Kit

$32 VALUE

Includes 540 pcs. (30 values) 1/4 watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.2kΩ	2.7kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	1.5kΩ	3.3kΩ	20kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2kΩ	5.1kΩ	22kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.2kΩ	5.6kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
81832	540 pcs. 1/4 watt Resistor kit	4.9	**$27.95**	**$24.95**
103165	Refill for 81832 (540-pc.)	0.2	**12.95**	**11.49**

1/2 Watt Carbon Film Resistor Kit

$36 VALUE

Includes 540 pcs. (30 values) 1/2 watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2kΩ	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
107879	540 pcs. 1/2 watt Resistor kit	5.1	**$29.95**	**$26.95**
107852	Refill for 107879 (540 pcs.)	0.4	**14.95**	**13.49**

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

81875 (Capacitor Kit)

Each Kit includes a 20-Drawer Component Cabinet (81701), 20 clear plastic drawers (85454), 20 clear dividers (85446), 30 adhesive labels for drawers to identify parts in kit, all Electronic Components listed in each kit.

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.
- Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit and each group of Components separately packaged.

When your cabinet needs a refill just call 1-800-831-4242

108433 (Hardware Kit)

1/2 Watt Single Turn Cermet Pot Kit

$80 VALUE

See page 25 (63P Series) for photos and specs

Includes 100 pcs. (10 values) 1/2 watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
63P500Ω	63P5kΩ	63P500kΩ	63P1kΩ	63P50kΩ
63P2kΩ	63P20kΩ	63P1MΩ	63P10kΩ	63P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85032	100 pcs. single turn Pot kit	4.9	$59.95	$53.95

3/4 Watt 15 Turn Cermet Pot Kit

$110 VALUE

See page 25 (43P Series) for photos and specs

Includes 100 pcs. (10 values) 3/4 watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
43P500Ω	43P5kΩ	43P500kΩ	43P1kΩ	43P50kΩ
43P2kΩ	43P20kΩ	43P1MΩ	43P10kΩ	43P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85041	100 pcs. 15 turn Pot kit	4.9	$79.95	$71.95

Switch Assortment Kit

$121 VALUE

See pages 37 & 38 for photos and specs

Includes 150 pcs. (15 types) PB, Slide, Dip & Toggle Switches

10 each	10 each	10 each	10 each	10 each
206-4	JMT121	JMT223	MPC221	MS103
206-8	JMT123	MPC121	MPC223	SDTX620K
JMT113	JMT221	MPC123	MS102	SW153

Part No.	Description	Wt. (lbs.)	1	10
85059	150 pcs. Switch kit	5.0	$89.95	$80.95

Hardware, Spacer and Standoff Kit

$71 VALUE

Includes 2400 pcs. (24 types) Spacers, Standoffs, Nuts, Flat, tooth & Lock Washers and Slotted PH Screws

100 each	100 each	100 each	100 each	100 each	100 each
Spacers	Hex nuts	Flat,	Int. tooth,	Split lock	PH machine screws
—	2-56	—	—	#2	2-56 x 1/4, —
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 3/8, 1/2

SALE

Part No.	Description	Wt. (lbs.)	1	10
108433	2400 pcs. Hardware kit	7.5	$59.95	$49.95
130497	Refill for 108433 (2400 pcs.)	2.7	44.95	39.95

Ceramic Capacitor Kit

$39 VALUE

Includes 520 pcs. (10 values) 50v ±20% Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
10pF	47pF	470pF	.022µF	.01µF
22pF	100pF	.001µF	.047µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81859	520 pcs. Ceramic Capacitor kit	5.0	$29.95	$26.95
130232	Refill for 81859 (520 pcs.)	0.3	14.95	13.49

Monolithic Capacitor Kit

$42 VALUE

Includes 280 pcs. (10 types) 50v ±20% Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100 each
22pF	.001µF	.047µF	.47µF	.01µF
100pF	.0022µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
171475	280 pcs. Monolithic Cap kit	5.0	$32.95	$29.95
171483	Refill for 171475 (280 pcs.)	0.3	17.95	15.95

Radial Electrolytic Capacitor Kit

$39 VALUE

Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
100µF @ 50v	1000µF @ 16v	1µF @ 50v	3.3µF @ 50v	22µF @ 50v
220µF @ 25v	2200µF @ 25v	1µF @ 100v	4.7µF @ 50v	47µF @ 50v
470µF @ 25v	3300µF @ 25v	2.2µF @ 50v	10µF @ 50v	100µF @ 25v

Part No.	Description	Wt. (lbs.)	1	10
81867	240 pcs. Radial Cap. kit	5.3	$29.95	$26.95
130331	Refill for 81867 (240 pcs.)	0.5	14.95	13.49

Axial Electrolytic Capacitor Kit

$46 VALUE

Includes 140 pcs. (10 values) ±20% Axial Electrolytic Capacitors

10 each	10 each	10 each	20 each	20 each
47µF @ 50v	220µF @ 50v	1000µF @ 25v	1µF @ 50v	10µF @ 50v
100µF @ 50v	470µF @ 50v	2200µF @ 16v	4.7µF @ 50v	2.2µF @ 50v

Part No.	Description	Wt. (lbs.)	1	10
81875	140 pcs. Axial Capacitor kit	5.3	$39.95	$35.95
130340	Refill for 81875 (140 pcs.)	0.6	24.95	22.49

Mylar Capacitor Kit

$48 VALUE

Includes 280 pcs. (10 values) 100v ±10% Mylar Capacitors

10 each	10 each	10 each	10 each	100 each
.001µF	.022µF	.047µF	.47µF	.01µF
.0047µF	.033µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81883	280 pcs. Mylar Capacitor kit	5.1	$34.95	$31.49
130358	Refill for 81883 (280 pcs.)	0.3	19.95	17.95

Dipped Tantalum Capacitor Kit

$119 VALUE

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
.1µF @ 35v	1µF @ 25v	3.3µF @ 35v	10µF @ 16v	22µF @ 16v
.22µF @ 35v	1µF @ 35v	4.7µF @ 35v	10µF @ 35v	33µF @ 25v
.47µF @ 35v	2.2µF @ 16v	6.8µF @ 35v	15µF @ 25v	47µF @ 25v

Part No.	Description	Wt. (lbs.)	1	10
81841	150 pcs. Tantalum Capacitor kit	4.8	$79.95	$71.95
130260	Refill for 81841 (150 pcs.)	0.3	64.95	58.95

Diode Assortment Kit

$45 VALUE

See page 19-19 for photos and specs

Includes 420 pcs. (15 types) Zener, Switching and Silicon Rectifiers

10 each	10 each	10 each	10 each	100 each
1N270	1N4001	1N4735	1N5408	1N914
1N751	1N4007	1N4742	C106B1	1N4004
1N3600	1N4733	1N5404	KBP04M	1N4148

Part No.	Description	Wt. (lbs.)	1	10
82587	420 pcs. Diode kit	5.0	$39.95	$35.95
130366	Refill for 82587 (420 pcs.)	0.3	24.95	22.49

Transistor Assortment Kit

$101 VALUE

See page 16-17 for photos and specs

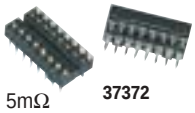
Includes 560 pcs. (20 types) NPN, PNP Transistors

10 each	10 each	10 each	10 each	100 each
2N2222A	2N4401	MJE3055T	TIP31A	2N3904
2N2907A	2N4403	MPF102	TIP32A	2N3906
2N3053	2N5951	MPSA06	TIP102	PN2222
2N3055	2N7000	MPSA13	TIP120	PN2907

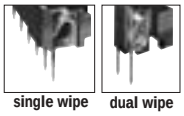
Part No.	Description	Wt. (lbs.)	1	10
82595	560 pcs. Transistor kit	5.1	$79.95	$71.95
130374	Refill for 82595 (560 pcs.)	0.4	64.95	58.95

Part Number Color Code
New Sale Refurbished Closeout

Solder Tail Low Profile Sockets


37372

- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated contacts and tails
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyesteror glass-filled polyphenylene sulfide
- Sleeve material: brass
- Lead length: .125"
- Body height: .156"


single wipe dual wipe

Single Wipe

- **Prepackaged: order in increments of 10, 100 or 1000**

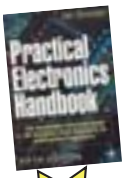
Part No.	Prod. No.	Pins	Width (in.)	10	100	1000
51570	8LP	8	0.3	$.07	$.06	$.05
37161	14LP	14	0.3	.07	.045	.035
37372	16LP	16	0.3	.10	.09	.06
38113	18LP	18	0.3	.07	.05	.03
38607	20LP	20	0.3	.12	.10	.07
39132	22LP	22	0.4	.04	.03	.02
39378	24SLP	24	0.3	.15	.10	.05
39335	24LP	24	0.6	.12	.07	.04
40301	28LP	28	0.6	.17	.11	.07
41110	40LP	40	0.6	.17	.12	.08

Dual Wipe

- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Prod. No.	Pins	Width (in.)	10	100	1000
112192	6LPD	6	0.3	$.08	$.05	$.04
112205	8LPD	8	0.3	.08	.07	.06
112213	14LPD	14	0.3	.08	.07	.05
112221	16LPD	16	0.3	.12	.10	.08
112230	18LPD	18	0.3	.14	.11	.09
112248	20LPD	20	0.3	.15	.12	.07
112281	24SLPD	24	0.3	.17	.11	.04
112264	24LPD	24	0.6	.12	.07	.03
112299	28SLPD	28	0.3	.19	.15	.13
112272	28LPD	28	0.6	.19	.15	.11
112301	32LPD	32	0.6	.15	.10	.07
112310	40LPD	40	0.6	.22	.19	.16
167396	48LPD	48	0.6	.35	.32	.29
112326	64LPD	64	0.9	.34	.34	.20

Practical Electronics Handbook



Newnes Publishing Covers all the key data, facts, practical guidance and circuit design basics needed. This book provides a wealth of clear explanations and practical guidance, making the ideal text for students and practitioners of electronics who have progressed beyond the basics. (561 pages, 2000)

SALE

- Complete specs on page 130.

Part No.	Description	1	10
175409	Practical Electronics Book.	$29.95	$26.98

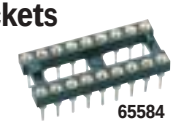
Practical Electronics Book for Inventors

McGraw-Hill Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares with other similar devices.

- Complete specs on page 130.

Part No.	Description	1	10
174529	Practical Electronics	$34.95	$31.45

Machine Tooled Low Profile Sockets


65584

- Contact plating: gold
- Tin plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mW
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MW
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Lead length: .188" • Body height: .125"

Part No.	Prod. No.	Pins	Width (in.)	1	10	100	1000
167003	6MLPT	6	0.3	$.29	$.22	$.17	$.14
51625	8MLP	8	0.3	.29	.26	.23	.21
37196	14MLP	14	0.3	.39	.35	.31	.28
37401	16MLP	16	0.3	.45	.40	.36	.32
65584	18MLP	18	0.3	.55	.49	.44	.39
38623	20MLP	20	0.3	.55	.45	.39	.35
184701	22SMLP	22	0.3	.59	.49	.45	.35
192209	22SMLP4	22	0.4	.59	.49	.45	.35
39386	24SMLP	24	0.3	.59	.45	.39	.29
39351	24MLP	24	0.6	.59	.49	.39	.35
114411	28SMLP	28	0.3	.75	.65	.55	.45
184680	28SMLP4	28	0.4	.75	.65	.55	.45
40328	28MLP	28	0.6	.75	.65	.55	.45
105380	32MLP	32	0.6	.89	.75	.55	.49
41136	40MLP	40	0.6	.89	.80	.72	.59
42059	48MLP	48	0.6	.99	.89	.79	.69

14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- For full-can oscillators, pg 27
- Good for prototyping and PCB mounting

Part No.	Description	1	10	100	1000
133006	Oscillator socket	$.59	$.45	$.39	$.35

SIMM and SIPP Sockets

100301

78641

104053

- Locking tabs
- Tinned contacts
- Memory module sockets
- Keyed mounting posts

SALE

SIMM Sockets

Part No.	Description	1	10	100	500
100301	Single x 30-pin, vert.	$.89	$.75	$.59	$.49
72531	Dual x 30-pin, vert.	.89	.75	.59	.49
72426	Single x 72-pin vert.	.75	.65	.59	.49

* Wire wrap

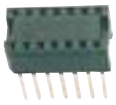
SIPP Sockets

Part No.	Description	1	10	100	500
192840	Single x 11-pin	$.49	$.39	$.25	$.21
78641	Single x 30-pin	.79	.65	.49	.45
104053*	Single x 30-pin	1.95	1.75	1.49	1.35
175919	Single x 36-pin	.99	.89	.79	.69

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 185

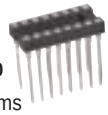
Level 2 Wire Wrap Sockets


37233

- Contact plating: gold (**WW**) or tin (**TWW**); dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mW
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MW
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Lead length: .438"
- Sleeve material: brass • Body height: .281"

Part No.	Prod. No.	Pins	Width (in.)	1	10	100	500
112660	8TWW	8	0.3	$1.45	$1.31	$1.19	$1.09
51641	8WW	8	0.3	1.81	1.64	1.49	1.36
37217	14TWW	14	0.3	1.78	1.62	1.47	1.34
37233	14WW	14	0.3	2.23	2.02	1.84	1.67
37436	16TWW	16	0.3	2.06	1.86	1.70	1.54
37479	16WW	16	0.3	2.57	2.33	2.12	1.93
87636	18TWW	18	0.3	3.57	3.25	2.96	2.69
75379	20TWW	20	0.3	2.50	2.26	2.06	1.87
38674	20WW	20	0.3	3.12	2.83	2.58	2.34
75416	24TWW	24	0.6	3.58	3.26	2.96	2.69
39394	24WW	24	0.6	4.48	4.07	3.70	3.36
75424	28TWW	28	0.6	3.67	3.34	3.03	2.76
40352	28WW	28	0.6	4.59	4.17	3.79	3.45
41179	40TWW	40	0.6	4.56	4.15	3.77	3.43
41187	40WW	40	0.6	5.70	5.19	4.71	4.29

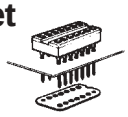
Level 3 Machine Tooled Wire Wrap Sockets


37410

- Contact plating: gold
- Contact current: 3A
- Contact resistance: < 5mΩ
- Tin plated leads
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Lead length: .515" • Body height: .125"

Part No.	Prod. No.	Pins	Width(in.)	1	10	100	500
94473	8MSWW	8	0.3	$.53	$.46	$.38	$.34
62050	14MSWW	14	0.3	.93	.80	.67	.60
37410	16MSWW	16	0.3	1.06	.91	.76	.68
94481	18MSWW	18	0.3	1.20	1.03	.86	.77
38631	20MSWW	20	0.3	1.33	1.14	.95	.86
185324	22MSWW	22	0.3	1.35	1.09	.89	.83
192831	22MSWW4	22	0.4	1.35	1.09	.89	.83
105371	24SMSWW	24	0.3	1.60	1.37	1.14	1.03
94490	24MSWW	24	0.6	1.60	1.37	1.14	1.03
40336	28MSWW	28	0.6	1.86	1.60	1.33	1.20
94502	40MSWW	40	0.6	2.66	2.28	1.90	1.71

Wire Wrap Socket I.D. Markers



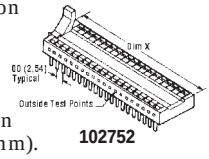
- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function

37356

Part No.	Prod. No.	Pins	Width (in.)	1	10	100	500
51561	8ID	8	0.3	$.35	$.25	$.22	$.20
37145	14ID	14	0.3	.29	.22	.19	.17
37356	16ID	16	0.3	.29	.22	.19	.17
38105	18ID	18	0.3	.55	.45	.35	.32
38586	20ID	20	0.3	.55	.45	.35	.32
39327	24ID	24	0.6	.55	.45	.35	.32
40299	28ID	28	0.6	.65	.55	.45	.41
41101	40ID	40	0.6	.89	.75	.65	.60

ARIES Low Profile ZIF Sockets

Provides a low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position measures just .554"(14.07mm).



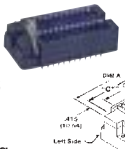
102752

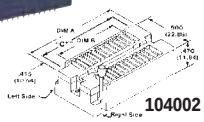
- Strong rigid cast metal cam provides uniform action over entire contact area

Part No.	Aries No.	Pins	Dim X	1	10	100
102744	28-526	28	1.64"	$5.49	$4.95	$4.25
102752	40-526	40	2.24"	6.49	5.95	5.25

ARIES Universal ZIF Sockets

- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes for reliable operation
- Accepts .300" to .600" IC centers x .1" spacing


103991



104002

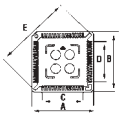
Part No.	Aries No.	Pins	1	10	100
103991	24-6554-10	24	$7.25	$6.49	$5.95
104002	28-6554-10	28	8.49	7.75	6.95
104011	32-6554-10	32	9.49	8.49	7.75
104029	40-6554-10	40	11.95	10.59	9.95

PLCC Surface Mount Sockets

- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55˚C/ +170˚C

SALE

152688



Dimensions in mm

Part #	A & B	C & D	E
152688	23.18	12.70	28.50
152696	30.80	20.32	40.00

Part No.	Product No.	Pins	1	10	50	100
152688	PLCC44D	44	$0.99	$0.72	$0.42	$0.32
152696	PLCC68D	68	.85	.77	.69	.62

PLCC Solder Tail Sockets

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Lead lgth.: .125" • Body ht.: .375"

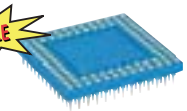
71968

Part No.	Product No.	Pins	1	10	50	100
71263	G1P428	28	$0.45	$0.35	$0.27	$0.19
71811	G1P432	32	.99	.79	.59	.39
71618	G1P444	44	.99	.79	.65	.55
72442	G1P452	52	.99	.79	.65	.49
71968	G1P468	68	1.15	.99	.89	.79
71976	G1P484	84	1.15	.95	.75	.49

88-Pin Solder Tail PGA Socket

- 13 x 13 pin grid array
- Contact plating: gold
- Rated current: 1A
- Rated voltage: 100Vrms
- Size: 1.4"L x 1.4"W x 0.11"T

SALE



Part No.	Description	1	10	50	100
172355	88-pin socket	$0.09	$0.08	$0.07	$0.06

We'll Send It Today
99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

.100" Low-Profile Male Shrouded Headers

Straight and Right Angle

- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Material: glass filled polyester, gray, UL94V-0
- Use with IDC socket connectors, pg 53

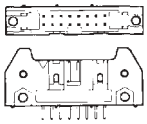
68179

Part No.	Description	1	10	100	1000
67811	10-pin	$0.39	$0.35	$0.31	$0.27
68179	16-pin	.39	.35	.32	.28
68291	20-pin	.35	.29	.22	.15
68371	26-pin	.45	.35	.29	.17
68582	34-pin	.45	.35	.25	.17
181104	40-pin	.45	.35	.29	.19

.100" (2.5mm) Straight Male Headers

w/ Standard Latch

Double Row

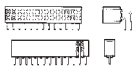


- Used with .156 housing (pg 52)
- 0.1" contact center
- Mount vertical • Keying slot
- Use with IDC socket connectors, pg 53

Part No.	Description	1	10	100	500
117663	10-pin	$0.55	$0.49	$0.44	$0.39
71829	20-pin	.55	.45	.35	.19
71933	26-pin	.55	.45	.35	.22
72215	50-pin	.75	.59	.45	.32
167409	60-pin	.22	.19	.17	.15

.100" (2.5mm) Female Header Receptacles

Double row right angle-side entry (A)
Single row vertical mount-top entry (B)



- Gold plated contacts
- 0.1" contact center

Right-Angle Mount (Side Entry) – A

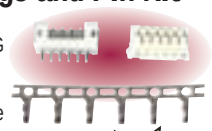
Part No.	Contacts	Type	1	10	100	500
71159	20	double row	$1.09	$0.95	$0.85	$0.75

Vertical Mount (Top Entry) – B

Part No.	Contacts	Type	1	10	100	500
70754	8	single row	$0.35	$0.29	$0.19	$0.15
70720	16	double row	.75	.65	.59	.53
70826	20	double row	.79	.69	.59	.53
105056	30	double row	.69	.59	.39	.35
163862	34	double row	.65	.49	.29	.19
111704	40	double (Tin)	1.29	1.15	.99	.89

100 Piece .078" (1.9mm) Assorted Headers, Housings and Pin Kit

- Current rating: 2A AC/DC
- Pin wire gauge: 22-28 AWG
- Material (post): tin-plated brass
- Material (pin): phos. bronze
- Applicable PC board thickness: 0.031" to 0.063" (0.8 to 1.6mm)
- Use 99442 crimper for pins, pg 97



SALE

✻ **Prepackaged: please order in increments of 100**

Part No.	Product No.	Description	1	10
172873	SVHCHK	Header/housing kit	$3.35	$3.13

Part No.	Product No.	Description	10	100	1000
152493	FCH2	Fem. crimp pin kit ✻	.03	.02	

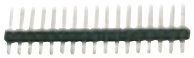
.100" Male Headers (Gold)

- Snap apart to fit your application
- Solder to PC boards for instant plug-in access via shorting blocks, pg 52 • Current rating: 1 amp
- Contact material: phosphor bronze
- Contact area: gold • Temp. range: -55°C to +120°C
- Insulation material: glass filled polyester
- .025" square posts on a .100" x .100" matrix
- Use with crimp connector housing, pg 52

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

109567

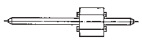
53575


103376

153728

.100" Straight Male Headers

Single Row

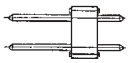


109575

Part No.	Product No.	Contacts	1	10	100	1000
108337	SMH02	2 ✻	$0.12	$0.10	$0.09	
109575	SMH03	3 ✻	.12	.10	.09	
117559	SMH04	4 ✻	.12	.10	.09	
153699	SMH06	6 ✻	.12	.10	.09	
153701	SMH08	8 ✻	.14	.12	.11	
103392	SMH10	10 ✻	.14	.12	.11	
103376	SMH17	17 ✻	.20	.18	.16	
103368	SMH20	20 ✻	.20	.18	.16	
103350	SMH25	25 ✻	.23	.21	.18	
103341	SMH30	30	.35	.31	.28	.25
68339	SMH36	36	.42	.38	.34	.29
160881	SMH40	40	.45	.39	.35	.31

.100" Straight Male Headers

Double Row

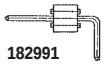


67820

Part No.	Product No.	Contacts	1	10	100	1000
115027	923804R	4 ✻	$0.12	$0.10	$0.09	
115035	923806R	6 ✻	.18	.16	.14	
109516	923808R	8 ✻	.18	.16	.14	
67820	923810R	10	.20	.18	.16	.14
118455	923714R	14	.35	.31	.27	.24
109567	923816R	16	.35	.31	.27	.24
53479	923862R	20	.47	.42	.38	.34
53495	923863R	26	.42	.38	.34	.29
53516	923864R	34	.42	.38	.34	.29
53532	923865R	40	.42	.38	.34	.29
53559	923866R	50	.42	.38	.34	.29
68574	923860R	60	.54	.49	.44	.39
103405	923772R	72	.66	.41	.34	.20
117196	923780	80	.83	.75	.67	.60

.100" Right Angle Male Headers

Single Row


182991

153728

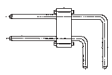
SALE

*Low profile

Part No.	Product No.	Contacts	1	10	100	1000
153728	RMH08	8	$0.29	$0.20	$0.15	$0.10
182991	RMH08LP*	8	.29	.20	.15	.10
103270	RMH36	36	.55	.45	.35	.22

.100" Right Angle Male Headers

Double Row



53575

Part No.	Product No.	Contacts	1	10	100	1000
53575	923872R	20	$0.49	$0.44	$0.39	$0.35
53583	923873R	26	.49	.39	.25	.19
53604	923875R	40	.55	.45	.32	.22
53612	923876R	50	.65	.50	.30	.20
103413	923672R	72	.75	.59	.49	.35
139563	923680R	80	.85	.69	.59	.39

Part Number Color Code
New Sale Refurbished Closeout

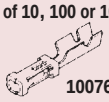
.100" Non-Polarized Connector Housings and Crimp Pins

- Mates with .025" square post on pattern of .100" centers (male headers, see pg 51)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 26-22 Awg • Plastic
- Temperature rating: -55°C to +105°C
- Use 159265 pin crimper & 100765 pins, pg 97

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

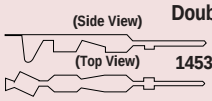
Single Row

103190


100765

Part No.	Product No.	Contacts	1	10	100	1000
100811	SCH2	2	✻	$.21	$.18	$.13
157382	SCH3	3	✻	.19	.12	.06
100802	SCH4	4	✻	.19	.12	.06
163686	SCH5	5	✻	.19	.12	.08
103211	SCH6	6	✻	.19	.12	.06
103202	SCH8	8	✻	.19	.12	.06
103190	SCH10	10	✻	.19	.12	.09
103181	SCH20	20	✻	.25	.15	.12
103157	SCH36	36	.45	.35	.25	.19
100765	FCH1	Female pin	✻	.10	.09	.06
145357	MCH1	Male pin	✻	.12	.08	.05

Double Row



145357

103253

Part No.	Product No.	Contacts	1	10	100	1000
103253	DCH8	8	$.32	$.25	$.19	$.10
157420	DCH10	10	.35	.29	.22	.12
157438	DCH14	14	.35	.29	.22	.15
103237	DCH16	16	.32	.25	.15	.08
103229	DCH20	20	.35	.29	.17	.12
157462	DCH40	40	.35	.29	.25	.19
157471	DCH50	50	.45	.39	.32	.27
100765	FCH1	Female pin	✻	.10	.09	.06
145357	MCH1	Male pin	✻	.12	.08	.05

.100" and 2mm Shorting Blocks

- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs
- Mate with male headers, pg 51
- Pin material: phosphor bronze

22023 (open)

112432 (closed)

Open: open on top to allow for a test point while
Closed: closed – functionally they are the same
119263: 2mm shorting block (for disk drives)

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
22023	Top open, black	✻	$.20	$.18	$.16
119263	Top open, black (2mm)	✻	.15	.10	.05
112424	Top open, blue	✻	.10	.06	.04
112416	Top open, red	✻	.10	.06	.04
19140	Top closed, black	✻	.12	.09	.06
112441	Top closed, blue	✻	.10	.06	.04
112432	Top closed, red	✻	.12	.08	.04

.100" Shorting Block w/ Handle

- Mates w/ .100" male headers, pg 51

Ratings: • Current: 3A
- Accessible test point in handle
- Contact resistance: 20mΩ max.

Material: • Plastic: PBT, glass filled
- Contact: phosphor bronze

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
152670	Shorting block w/ handle	✻	$.19	$.17	$.11

.100" Low Profile Keyed Shrouded Headers and Connector

CD-ROM Headers and Connector

152741

181753

152725

- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/minute
- Pin material: tin-plated brass
- Recommended crimp tool P/N 99442, pg 97

† P/N 152733 requires 4 pins (P/N 181673)

152733

✻ **Prepackaged: please order in increments of 10**

Part No.	Description	1	10	100	1000
152741	Strght headr (4-pin)	$.45	$.39	$.35	$.31
181753	Strght headr (5-pin)	.89	.80	.72	.59
152725	Right angle header	.45	.35	.29	.15
152733†	Single w/ latch	.29	.25	.19	.15
181673	Female pins	✻	.10	.06	.04

0.156" (3.9mm) Center Straight-Friction Lock Headers

- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: 20mΩ
- Temperature range: -25°C to +85°C
- Header material: pin - brass/tin-plated
- Base: nylon 66, UL94V-2

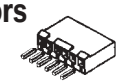
104811

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	Pins	1	10	100	1000
104791	LMH4	4	✻	$.13	$.12	$.10
104803	LMH5	5	✻	.22	.15	.10
104811	LMH6	6	.29	.22	.17	.12
104838	LMH8	8	.32	.28	.25	.23
104846	LMH10	10	.32	.28	.25	.22

0.156" (3.9mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 71-66) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318, right



104731

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	Pins	1	10	100	1000
176743	LCH2	2	✻	$.12	$.10	$.09
104432	LCH3	3	✻	.12	.08	.04
104715	LCH4	4	✻	.15	.12	.05
104723	LCH5	5	✻	.15	.12	.05
104731	LCH6	6	✻	.19	.15	.08
104766	LCH10	10	✻	.25	.22	.19

MIL-MAX Header and Socket

.100" Male Header (Single Row)

- Solder tail; .025" square posts

Part No.	Product No.	Pins	1	10	100
184639	SRPH20	20	$.99	$.89	.79

.100" Female Socket (Dual Row)

- Single in-line dual row; machine tooled pins; solder tail

Part No.	Product No.	Pins	1	10	100
184612	20DILS	20	$.49	$.35	$.27

.100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: .188"
- 0.1" spacing between leads

* 134922 is tin-plated

37129

Part No.	Prod. No.	Width	Pins	1	10	100
104336	8HP	0.3"	8	$.69	$.59	$.49
134922*	14THP	0.3"	14	.79	.69	.59
37129	14HP	0.3"	14	1.19	1.05	.95
37330	16HP	0.3"	16	1.29	1.15	1.05
38578	20HP	0.3"	20	1.49	1.35	1.19

.100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing • Plastic
- Plastic with Gold-Plated contacts
- Uses 28 AWG flat ribbon cable, pg 81
- Current rating: 1 amp

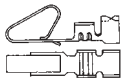
42673

✻ **Prepackaged: please order in increments of 10**

Part No.	Prod. No.	Width	Contacts	1	10	100	500
42657	609-14	0.3"	14	$.39	$.29	$.21	$.19
42673	609-16	0.3"	16	.45	.35	.27	.25
104096	609-20	0.3"	20	.49	.39	.35	.25
42690	609-24	0.6"	24	.59	.49	.39	.32
175927	PCB26	0.2"	26	✻	.03	.02	.01
99670	609-28	0.6"	28	.69	.59	.49	.39
42711	609-40	0.6"	40	.79	.69	.55	.49

0.156" (3.9mm) Center Crimp Pin

- Use with .156 housings (left)
- Use 159265 crimping tool, pg 97
- Material: brass/tin plated
- Pin wire gauge: 22-26 Awg



✻ **Prepackaged: please order in increments of 10, 100, 1000**

Part No.	Product No.	Description	1	10	100	1000
78318	AMP501T	Crimp pin	✻	$.10	$.06	$.04

0.156" Female Crimp Pins

- Pin wire gauge: 18-22 AWG
- Material: tin-plated brass
- Use 99442 crimping tool, pg 97

✻ **Prepackaged: please order in increments of 10**

Part No.	Product No.	Description	1	10	100	1000
154093	LRPIN	Crimp pins	✻	$.22	$.19	$.17

0.156" Male Header Grab Bag (100 Pcs.)

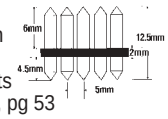
Outer Locking Strip

- Voltage rating: 250V AC/DC
- 0.045" post diameter • Current rating: 7A AC/DC
- Insulation resistance: 1000MΩ min.
- Variety of pins 4, 5, 6, 7, 8, 10
- Header material: tin-plated brass (pin); nylon (base)

Part No.	Product No.	Description	1	10
172857	LRMHK	.156" male header	$.49	$.25

0.197" (5mm) Male Header

- Spacing: .197"
- Snap apart to fit your application
- Contact pin: tin plated brass
- Color: black • 0.05" round posts
- Use with P/N 164793 & 164806, pg 53



Part No.	Product No.	Pins	1	10	100
164814	TBH24	24	$1.85	$1.65	$1.45

0.197" (5mm) Vertical Terminal Blocks

Side Entry

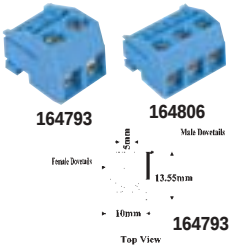
- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 22-14AWG
- PCB hole diameter: 0.05"
- Spacing: 0.197"
- Terminal block: copper zinc

189675

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
189675	2	.42 x .3 x .37..	$.59	$.49	$.39	$.29
189667	3	.61 x .3 x .37 ..	.69	.59	.45	.35

0.197" (5mm) Terminal Blocks

- Screw size: M2.6
- Rated current: 10A; 300VAC
- Insulation resistance: >500MΩ @ 500VDC
- PCB hole diameter: 1.8mm
- Wire range: 14-24 AWG
- Materials: cage clamp/ terminal/pin header – tin plated brass
- Use with P/N 164814, pg 52



164793 164806 164793

Part No.	Terminal	Block Lgth	1	10	100	1000
164793	2	.395"	$.59	$.53	$.47	$.42
164806	3	.615"	.89	.75	.55	.35

0.197" (5mm) Terminal Blocks

- Materials: housing: polyimide; solder: tin plated brass
- Lead spacing: 0.197" • Wire range: 12-24 AWG
- Contact rating: 300V @ 10A • PC mount
- Insulation resistance: 500MΩ or more @ 500V
- Modular housing: end-to-end stackability
- Terminals interlocking with same series

DT Series

Fig. 1

99397

DT128 Type (Side Entry)

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
99426	1	2	0.4"....	$.75	$.65	$.55	$.45
99397	1	3	0.6".....	.75	.65	.55	.45

EK500 Series

160784

161066

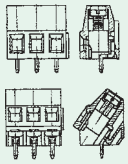


Fig. 2 Fig. 3

EK500V Type (Side Entry)

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
160784	2	2	0.4" ...	$.65	$.55	$.45	$.32
160792	2	3	0.6"	.75	.65	.49	.39

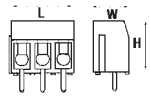
EK500A Type (45° Entry)

161066	3	2	0.4" ...	$.45	$.35	$.29	$.25
161058	3	3	0.6"	.55	.49	.44	.39

0.200" (5.08mm) Vertical Terminal Blocks

Side Entry

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 14-22 AWG
- PCB hole diameter: 0.05"
- Spacing: 0.200"
- Insulating material: polyimide
- Terminal block: copper zinc
- Wire guard: copper nickel



152346

Part No.	Term.	L x W x H (in.)	1	10	100	1000
152346	2	.42 x .35 x .49.....	$.55	$.45	$.35	$.25
152354	3	.62 x .35 x .49.....	.75	.67	.59	.54

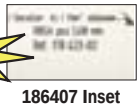
entrelec .20" PCB Connectors

186415

186491

186520

CPFT2 Series


186407 Inset

- Plug shape: tile
- Screw-clamp connection
- Spacing: .200"
- Wires to parallel (P) or perpendicular (R) connection

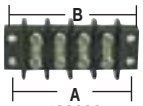
186407: Sticker marker card

- Card of 240 markers • Each strip is pre-cut
- Material: polyester • Dimensions: 5mm

Part No.	Entrelec No.	# of Poles (P/R)	1	10	100
186415	009430221	2/P ...	$1.19	$1.09	$.95
186423	009430322	3/P	1.79	1.59	1.45
186431	009430423	4/P	2.39	2.15	1.95
186440	009430807	8/P	4.79	4.29	3.89
186491	009435222	2/R	1.19	1.09	.99
186503	009435323	3/R	1.79	1.39	1.19
186520	009435424	4/R	2.39	2.15	1.89
186538	009435800	8/R	4.79	4.29	3.85

Part No.	Entrelec No.	Type	1	10	100
186407	017862302	RB5A	$7.09	$6.35	$5.71

KULKA® 601 GP Series Double Row Terminal Blocks



188699

188672

- Base: general purpose phenolic; 150˚C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated
- 7/16" centers
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved

Part No.	Kulka No.	# Poles	Size (in.) A	Size (in.) B	Pricing 1	Pricing 10	Pricing 50
188699	601GP4	4	2.19	2.50	$1.69	$1.49	$1.29
188681	601GP6	6	3.06	3.38	2.39	2.19	1.95
188672	601GP8	8	3.94	4.25	3.19	2.95	2.69
188664	601GP10	10	4.81	5.13	3.49	3.29	2.95
188701	601GP12	12	5.69	6.00	5.49	4.95	3.95

entrelec .20" PCB Connectors

186571

186466

186482

CPET Series

SALE

- Plug shape: tile • Spacing: .200"
- Pin: .039"L x .039"W x .138"H
- Connectors available vertical (V) or horizontal (H)

Part No.	Entrelec No.	# of Poles (V/H)	1	10	100
186554	009410312	3/V	$.49	$.43	$.38
186571	009410827	8/V	1.25	1.10	.99
186466	009420326	3/H	.45	.39	.35
186474	009420427	4/H	.65	.55	.49
186482	009420803	8/H	1.25	1.10	.99

.100" & 2mm IDC Socket Connectors

Double Row

- Mates with 2 rows of .025"Sq. or Dia. posts on patterns of .100" centers (male headers, see pg 51)
- Current rating: 1A
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use P/N 73251, pg 98: insulation displacement connection crimper for these connectors

* **100386:** 2mm pin spacing

32563

Polarized IDC Socket Connectors

Part No.	Product No.	Contacts	1	10	100	1000
32491	S10	10	$.32	$.25	$.19	$.12
153947	S14	14	.32	.25	.19	.13
119466	S16	16	.35	.29	.22	.15
32521	S20	20	.39	.32	.25	.17
32563	S26	26	.45	.35	.29	.17
32643	S34	34	.45	.35	.29	.17
32678	S40	40	.55	.45	.35	.19
100386*	IDC440	44(2mm)	.99	.85	.69	.59
32707	S50	50	.65	.55	.45	.29
32758	S60	60	.75	.59	.39	.35

Non-Polarized IDC Socket Connectors

Part No.	Product No.	Contacts	1	10	100	1000
138376	SN10	10	$.29	$.22	$.17	$.12
138325	SN20	20	.35	.29	.17	.12
138333	SN26	26	.44	.39	.35	.31
138341	SN34	34	.35	.25	.15	.12
138350	SN40	40	.45	.35	.29	.19
138368	SN50	50	.59	.49	.29	.22

Card-Edge Connectors

- Fits all PC boards
- .054" to .070" thick

40694

Solder Eyelet .140" Spacing Between Rows

- Contact centers: .156
- With mounting ears

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Position	Contacts	1	10	100
39116	22/44	Gold	$2.25	$1.95	$1.49

Solder Tail .200" Spacing Between Rows

- Contact centers: .100 • Without mounting ears

Part No.	Position	Contacts	1	10	100
40694	31/62	Tin (PC/AT)	$1.25	$.99	$.75
164013	32/64	Tin ..... ✻		.02	.01
42091	49/98	Tin (AT)	.89	.59	.39

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

Part Number Color Code
New Sale Refurbished Closeout

110/220VAC Variable AC Transformers

121275

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275	3A/250V (P/N 69438)	5.3 x 7.3 x 7.0	10.4
129007	5A/250V (P/N 10401)	9.4 x 6.5 x 7.7	14.8
152581	10A/250V (P/N 69462)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10	50
121275	500VA transformer ..	$79.95	$69.95	$62.95
129007	1000VA transformer	119.95	109.95	99.95
152581	2000VA transformer	169.95	152.95	152.95

110VAC 320VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz (using pin 1-2) 110VAC @ 50Hz (using pin 1-4)
- Power: 320VA
- Matching input/output terminals: P/N 103667 and 109111 (disconnect .25" solderless terminals), pg 156
- Maximum current: 2.5A
- Panel mount
- Size: 2.8"Dia. x 2.1"H • Shaft length: 0.5"
- Weight: 2.5 lbs.
- One-year warranty

Includes: 3 disconnect .25" solderless terminals

Part No.	Description	1	10	50
149323	320VA variable	$49.95	$44.95	$39.95

AEEC 110VAC 500 & 2000VA Variable AC Transformers

169640

169658

- Input voltage: 110VAC @ 60 Hz
- Power: 500 and 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input connector: 3-prong plug with 5' cord
- Output conn.: 3-prong outlet type
- Lighted on/off power switch

169640: • 5A @ 250V fuse
- Size: 8.3"L x 6.5"W x 7.0"H
- Weight: 15.6 lbs.

169658: • 20A @ 250V fuse
- Size: 9.8"L x 8.0"W x 7.0"H
- Weight: 26.5 lbs.

Part No.	Description	1	10	50
169640	500VA transformer	$59.95	$53.95	$48.95
169658	2000VA transformer	119.95	109.95	99.95

110VAC 550VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz
- Power: 550VA • Panel mount
- Output voltage: 0-140VAC
- Rated current: 5A
- Input/output terminals: binding post with 0.188" diameter post
- Size: 4.3"Dia. x 4.0"H
- Weight: 6.8 lbs. • One-year warranty

Part No.	Description	1	10	50
152936	550VA variable	$74.95	$67.49	$60.75

6VAC/9VAC Dual Output Power Transformer

12VA (Watts)

- Input voltage: 120VAC
- **Output voltage: 6VAC @ 500mA center tap (yellow wires); 9VAC @ 1A center tap (blue wires)**
- Size: 2.1"L x 3.2"W x 2.0"H • Weight: 1.3 lbs.

Part No.	Product No.	1	10	100
183089	YS57H-099FAA	$4.95	$4.49	$3.95

120VAC to 120VAC Isolated Transformer

300VA (Watts)

- Input voltage: 120VAC @ 60Hz
- Input conn.: 5.5' cord w/ 2-prong plug
- Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D • Weight: 7.0 lbs.

Part No.	Product No.	1	10	100
181315	ITR300	$34.95	$31.49	$27.95

115VAC & 115/230VAC Power Transformers

Power transformers have both single and dual voltage input and center tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier, and filter circuits.

- Primary: 115VAC or 115/230VAC, 50/60Hz

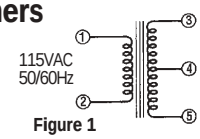


Figure 1

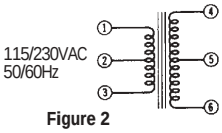


Figure 2

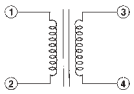
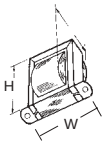


Figure 3



29225

* Center tap

Part Number	Product Number	Triad Cross	Primary Voltage	Primary Color Code			Secondary Voltage	Secondary Color Code			Lead Type	Fig.	Dimensions L"	W"	H"	Weight (lbs.)	Pricing 1	10	100
29225	XFR122	F44X	115VAC	Yellow	—	Yellow	12.6VCT @ 2A	Blue	Red*	Black	Wire	1	2.12	2.33	1.96	1.5	$7.95	$6.95	$6.25
102120	XFR124	F181U	115VAC	Black	—	Black	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	9.95	8.95	7.95
112512	XFR242N	F229X	115VAC	Black	—	Black	24VAC @ 2A	White	—	White	Wire	3	1.75	2.75	2.25	1.8	7.95	6.95	6.25
99653	XFR242	—	115VAC	Red	—	Red	24.6VCT @ 2A	Blue	Yellow*	Blue	Wire	1	2.44	2.70	2.30	2.5	7.95	6.95	6.25
102162	XFR6102	F314X	115/230VAC	Black	Yellow*	Red	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.8	5.95	5.35	4.79
105523	XFR0910	—	115/230VAC	Black	White*	Red	9VCT @ 1A	Blue	Black*	Blue	Wire	2	1.79	1.96	1.66	0.7	5.95	5.35	4.79
102154	XFR1220	F344X	115/230VAC	Black	Yellow*	Red	12.6VCT @ 2A	White	Black*	White	Wire	2	2.35	2.32	1.97	1.5	7.95	6.95	6.25
149770	XFR1240	F3181U	115/230VAC	Black	Red*	Yellow	12.6VCT @ 4A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.2	9.95	8.95	7.95
105531	XFR1810	—	115/230VAC	Blue	Red*	Black	18VCT @ 1A	Yellow	Black*	Yellow	Wire	2	2.32	2.05	1.90	1.2	5.95	3.62	2.80
149956	XFR1820	—	115/230VAC	Black	Red*	Yellow	18VCT @ 2A	White	Black*	White	Wire	2	2.26	2.66	2.28	1.8	7.95	6.95	6.25
102111	XFR2410	F346X	115/230VAC	Black	Yellow*	Red	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	6.95	6.25	5.59
102103	XFR2520	F341X	115/230VAC	Black	White*	Red	25.2VCT @ 2A	Orange	Black*	Orange	Wire	2	2.45	2.67	2.26	2.8	12.95	11.65	10.49
149796	XFR2820	F3185U	115/230VAC	Black	Red*	Yellow	28VCT @ 2A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.3	12.95	11.65	10.49

See page 62 for DIN Rail Switching Power Supplies and Fuse Holders

150-Watt DC-AC Inverters

188293

188285

- Input voltage: 12VDC
- Peak power surge capable
- Overload and high grade thermal protection
- For complete specifications see page 60

Part No.	Product No.	Output Voltage	1	10	25
188293	G12-015-B2E	120VAC	$49.95	$44.95	$39.95
188285	G12-015-E3E	220VAC ...	39.95	36.05	32.44

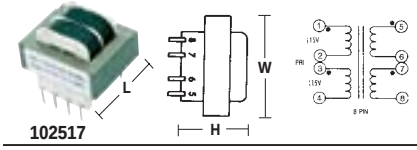
30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 185

Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

- Primary: 115/230VAC, 50/60Hz
- PC terminal pin spacing for accurate placement

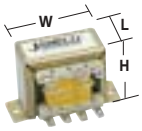


102517

Part Number	Product Number	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions L"	Dimensions W"	Dimensions H"	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
102517	XFR1602SB	FS16150	115/230	2.4	8V @ .15A	8V @ .30A	16VCT @ .15A	1.17	1.38	1.20	0.3	$6.95	$6.25	$5.49
157702	EU06-2-010	FS10600	120/240	6.0	5V @ .60A	5V @ 1.20A	10VCT @ .60A	1.50	1.88	1.04	0.3	2.75	2.45	2.20
176090	SPT41240-120	FS24250	115/230	6.0	12V @ .25A	12V @ .50A	24VCT @ .25A	1.33	1.63	1.59	0.5	5.95	5.35	4.75
102533	XFR1205SB	FS12500	115/230	6.3	6.3V @ .50A	6.3V @ 1.00A	12.6VCT @ .50A	1.31	1.62	1.30	0.4	6.49	5.75	4.95
102592	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.00A	24VCT @ .50A	1.58	1.90	1.46	0.7	6.49	5.75	4.95

Quick Connect Power Transformers

- Quick connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder
- Input voltage: 115/230VAC, 50/60Hz



104387

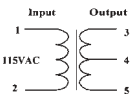


Fig. 1

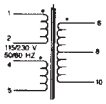


Fig. 2

Part Number	Product Number	Triad Cross	Fig.	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions L"	Dimensions W"	Dimensions H"	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
164110	241-3-10	F310	1	115VAC	10VCT @ 0.25A	2.4	0.187"	.59	1.45	2.00	0.2	$3.95	$3.49	$2.95
104387	XFR1225Q	FD612	2	115/230VAC	12.6VCT @ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	9.95	8.95	7.95
104408	XFR1635Q	FD716	2	115/230VAC	16VCT @ 3.5A	56.0	0.187"	2.00	2.70	2.30	1.8	9.95	8.95	7.95
101864	XFR2424Q	FD724	2	115/230VAC	24VCT @ 2.4A	57.6	0.187"	1.87	2.70	2.25	1.7	8.95	7.95	6.95
104416	XFR3615Q	FD736	2	115/230VAC	36VCT @ 1.5A	54.0	0.187"	1.90	2.70	2.30	1.8	8.95	6.95	5.56

See page 26 for Current Sensing Transformers

We'll Send It Today
99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

See page 26 for Audio and Modem Coupling Transformers

Power Entry Filters and AC Plug Connectors

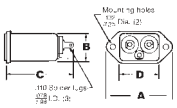


Fig.1 (Solder Terminals)

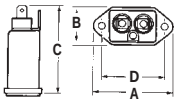


Fig. 2 (Fast-on Terminals)

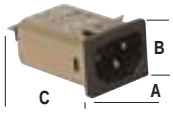


Fig.3 (146907)

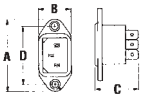


Fig. 4

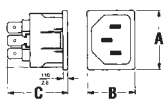


Fig. 5

Fig. 6 (117444)

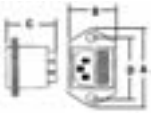


Fig. 7

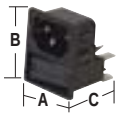


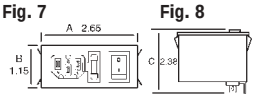
Fig. 8

- Frequency: 50/60Hz

[1] Includes spare fuse holder (Fuse type 5mm x 20mm (250V))

SALE

Fig. 9



Part Number	Product Number	Corcom Cross	Description	Fig.	Current (Amps)	Voltage (VAC)	Terminals	Agency Approvals	Terminal Size	Dimension (inches) A	Dimension (inches) B	Dimension (inches) C	Dimension (inches) D	Pricing 1	Pricing 10	Pricing 100	Pricing 500
150615	03AC1	3EF1	Power entry filter, straight (flanged)	1	3	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.58	1.58	$4.49	$3.55	$2.75	$2.39
146907	03DENG3B		Power entry filter (snap-in)	3	3	250	fast-on	UL/CSA/VDE	.25"	1.25	0.95	2.23	N/A	5.49	4.95	4.49	3.95
40601	03AE1	3EF1F	Power entry filter, straight (flanged)	2	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	4.49	3.95	3.49	2.75
180620	06AR2D		Power entry filter, fused w/ switch (snap-in)	9	4	250	fast-on	UL/CSA/VDE/CE	.25"	2.65	1.15	2.38	N/A	4.95	4.05	3.35	2.79
42454	06AC1	6EF1	Power entry filter, straight (flanged)	1	6	250	solder	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	6.49	5.75	4.95	4.49
63132	06AE1	6EF1F	Power entry filter, straight (flanged)	2	6	250	fast-on	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	4.95	4.49	3.75	3.49
167441	10AE1	10EF1F	Power entry filter, straight (flanged)	2	10	250	fast-on	UL/CSA	.25"	1.97	0.89	2.65	1.58	4.95	4.05	3.35	2.36
165016	SUP-J15G-E-2		Power entry filter straight (flanged)	1	15	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.18	1.58	2.75	2.49	2.25	1.95
16651	JR101		AC power inlet (male) flanged	4	15	250	fast-on	UL/CSA/VDE	.187"	1.96	0.89	1.07	1.58	.59	.49	.35	.29
147900	P0707		AC power inlet (male) flanged	4	15	250	solder	UL/CSA/VDE	.16"	1.96	0.89	1.04	1.58	.75	.59	.49	.39
147109	42R02		AC power inlet (male) snap-in	5	15	250	fast-on	UL/CSA/VDE	.25"	1.22	0.94	1.13	N/A	.69	.55	.45	.35
173770	6200-21		AC power inlet (male) fused (flanged)	7	10	250	fast-on	UL/CSA/VDE	.136"	1.73	1.34	1.00	1.41	.99	.85	.69	.55
117444	0717		AC power inlet (male) fused (snap-in)[1]	6	10	250	fast-on	UL/CSA/VDE	.187"	1.18	1.30	1.21	N/A	1.49	1.35	1.09	.99
177332	PF1125		AC power inlet (male) fused (snap-in)[1]	6	10	250	fast-on	UL/CSA/VDE	.25"	1.22	1.34	1.24	N/A	.79	.72	.65	.59
184903	42R363152IOU		AC power inlet (male) w/ switch (snap-in)	8	15	250	fast-on	UL/CSA/VDE	.25"	1.30	1.58	1.42	N/A	1.49	1.25	.95	.79
171563	P3520		AC power outlet (female) flanged	4	6	250	solder	UL/CSA/VDE	.11"	1.97	1.14	1.32	1.58	.29	.24	.21	.19
174246	SC11		AC power outlet (female) flanged	4	15	250	fast-on	UL/CSA/VDE	.187"	.197	1.17	1.34	1.58	.79	.69	.59	.53

Part Number Color Code
New Sale Refurbished Closeout

International 50-Watt Plug-In Step-Down Wall Transformer

Converts foreign 220/240VAC to 110/120VAC. Built-in input plugs for Europe/Middle East; England/Africa and Australia/Philippines outlets.

- Input voltage: 220/240VAC
- Output voltage: 110/120VAC
- Input selectable prongs for applicable countries
- 2-prong flat or round receptacle compatible
- LED status indicator for power
- Size: 4.4"H x 2.0"W x 2.0"D • Weight: 1.0 lb.

RCA

Part No.	Description	1	10	25
191783	International transformer	$19.95	$17.95	$15.95

MEAN WELL 40.6-Watt Table-Top Regulated DC Power Supply

- Output voltage:
  +5VDC @ 5A
  +12VDC @ 1A
  -12VDC @ 0.3A
- Input voltage: 100/240VAC @ 47-63Hz
- Mating output connector: 5-pin DIN female connector P/N 15843, pg 50

Part No.	Product No.	1	10	50	100
155053	SPU41-13D1	$49.95	$44.95	$39.95	$35.95

SALE

AC/AC Table-Top Step-Down Transformers

- Input voltage: 120VAC @ 60Hz • Attached AC cord

Part Number	Product Number	Output Volts (VAC)	Output Current (A)	Output Watts (W)	Output Plug ID x OD Plug Type	Power Indicator	Color	Size (L" x W" x H")	Cord (AC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
196197	4182	10	1.0	10	2.1mm x 5.5mm female	No	Black	3.3 x 2.3 x 1.8	4'/6'	1.5	UL	$4.95	$4.49	$3.95	$3.49
176348	LTCA054#	14	4.0	56	2.1mm x 5.5mm female	No	Black	4.1 x 3.1 x 2.4	5'8"/5'8"	2.7	UL/CUL	6.95	6.25	5.59	4.95
176604	TA661640#	16	4.0	64	2.1mm x 5.5mm female	No	Black	3.7 x 2.9 x 2.5	6'/6'	2.8	CSA	14.95	13.49	11.95	10.95
174220	PS571418CG	18	0.75	13	4-pin mini DIN male connector	No	Black	3.3 x 2.6 x 2.2	5'6"/6'	2.2	UL	1.75	1.55	1.39	1.25
147310	0931RB	24	0.70	17	3-pin (0.156") female housing	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.1	UL	4.95	4.49	3.95	3.25
152135	100380-001	24	1.46	35	2.1mm x 5.5mm female	No	Black	3.6 x 2.7 x 2.1	3'5"/5'6"	1.9	UL/CSA	7.95	6.95	5.95	4.95

120VAC input; 5A @ 250V fuse

International Right-Angle Power Adapters

- Use as power cord replacements for table-top power supplies, see page 69
- Molded PVC construction • Removes excess cordage from work area

SALE

Part No.	Description	Rating	Country	1	10	100	250
176188	NEMA-15P to IEC CI3	10A @ 115VAC	USA	$1.39	$1.25	$1.13	$1.02
176196	B51363/A to IEC-C13	13A @ 250VAC	UK	1.85	1.71	—	—

176188

176196

International Step-Up/Step-Down Transformers

- Wide selection to meet your power requirements

Fig. 1

Fig. 2

Fig. 3

Fig. A Plug

Fig. B Plug

Output Plug

Part Number	Product Number	Fig.	Power (VA)	Primary Voltage	Secondary Voltage	Dimensions H"	W"	D"	Weight (lbs.)	Pricing 1	10	100
99573	AC110V50	1/A	50	220VAC	110VAC	2.50	1.63	1.33	0.7	$6.95	$6.25	$4.95
85016	AC110V300	3/A	300	220VAC	110VAC	3.50	3.05	3.95	4.8	24.95	22.49	19.95
111851	AC110V500	2/A	500	220VAC	110VAC	3.99	3.60	4.84	8.5	31.95	28.95	25.95
142906	AC110V1500	2/A	1500	220VAC	110VAC	5.25	4.50	5.75	15.2	69.95	59.95	56.95
99477	AC220V50	1/B	50	110VAC	220VAC	2.50	1.63	1.33	0.7	6.95	6.25	4.95
85008	AC220V300	3/B	300	110VAC	220VAC	3.50	3.05	3.95	4.8	24.95	22.49	19.95

International Power Cords

- 3-conductor detachable power cords
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- IMQ: Instituto Italiano del marchio di Qualita
- BSI: British Standard Institution

SALE

European Agency Approvals

Germany	VDE		France	LCIE	
Austria	OVE		Netherlands	KEMA	
Belgium	CEBEC		Norway	NEMKO	
Denmark	DEMKO		Sweden	SEMKO	
Finland	FIMKO		Switzerland	SEV	

Fig. 5

Cord Configuration Chart - End 1

Cord Configuration Chart - End 2

117911 (Fig. 1)

173841 (Fig. 2)

174633 (Fig. 3)

177341 (Fig. 4)

Part Number	Product Number	Country	Weight (lbs.)	Agency Approvals	Cord Plug Fig. End 1	End 2	Length	Cord Color	Conductors	Cord Type	Pricing 1	10	100	250
173868	2171H576G	Europe	0.4	All in Fig. 5	A	1	6 ft.	Gray	3/.75mm²	H05VVF	$1.45	$1.26	$1.13	$1.01
117911	PCVDE-6B	Europe	0.4	All in Fig. 5	A	1	6 ft.	Black	3/.75mm²	H05VVF	9.95	8.95	7.95	7.25
138270	H05VVF	Europe	0.4	All in Fig. 5	A	1	6 ft.	Beige	3/1.0mm²	H05VVF/HAR	9.95	8.95	7.95	7.25
147897	CL102	Europe	0.4	All in Fig. 5	A	2	6 ft.	Black	3/.75mm²	H05VVF	1.69	1.52	1.36	1.22
173841	2271H376G	Europe	0.4	All in Fig. 5	A	2	6 ft.	Gray	3/.75mm²	H03VVF	1.85	1.66	1.49	1.34
173850	2271H518G	Europe	0.6	All in Fig. 5	A	2	8 ft.	Gray	3/1.0mm²	H05VVF	2.29	2.07	1.86	1.68
173817	KC-015A	Europe	0.9	All in Fig. 5	A	1	14 ft.	Black	3/1.0mm²	H05VVF	.49	.46	.43	.40
177341	86559011	India/Africa	0.7	VDE	A	4	9 ft.	Black	3/1.0mm²	HAR	5.95	5.49	4.95	4.49
184891	WS-012A	UK/Ireland	0.6	BSI	A	4	6 ft.	Black	3/1.0mm²	H05VVF	2.15	1.94	1.74	1.56
174633	21071H5182	UK/Ireland	0.7	BSI	A	3	8 ft.	Black	3/1.0mm²	H05VVF	5.95	5.49	4.49	3.95

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- Voltage rating: 300 volts

SALE

AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875

Line Cord (Fig. 1)

Laptop Power Cord (Fig. 2)

Power Cord (Fig. 3)

Shielded Power Cord (Fig. 4)

184815 (Fig. 5)

Computer Power Cord (Fig. 6)

RFI Power Cord (Fig. 7)

Right Angle Computer (Fig. 8)

Piggy-Backed Computer (Fig. 9)

Power Supply Extension (Fig. 10)

Shielded Power Cord (Fig. 11)

Monitor Power Adapter Cord (Fig. 12)

173892 (Fig. 13)

Hospital Grade Cord (Fig. 14)

173884 (Fig. 15)

Part Number	Product Number	Description	Weight (lbs.)	Agency Approvals	Plug Fig.	Length	Color	AWG	Cord Type*	Pricing 1	10	100	250
152186	17106BG	2-conductor power cord with pigtail	.20	UL/CSA	1	6'	Beige	18/2	SPT-2	$.75	$.59	$.45	$.35
124433	ST008	2-conductor power cord with pigtail	.16	UL/CSA	1	6'	Black	18/2	SPT-2	1.15	1.03	.93	.83
42041	17106	2-conductor power cord with pigtail with strain relief	.25	UL/CSA	1	6'	Black	18/2	SPT-2	.95	.79	.69	.55
146309	PC182J6	2-conductor power cord (round) with pigtail	.31	UL/CSA	1	6'	Black	18/2	SJT	.29	.25	.22	.19
189587	VW-1	2-conductor power cord for laptop computer power supplies	.30	UL/CSA	2	6'	Black	18/2	SPT-2	2.95	2.39	2.05	1.59
38009	17237	3-conductor power cord with pigtail	.31	UL/CSA	3	6'	Gray	18/3	SVT	2.49	2.25	1.95	1.75
173809	17405	3-conductor power cord with pigtail	.39	UL/CSA	3	6'	Gray	18/3	SJT	1.95	1.49	1.25	.99
37997	17236	3-conductor power cord with pigtail	.30	UL/CSA	3	6'	Black	18/3	SVT	2.49	2.25	1.95	1.75
174545	172365	3-conductor power cord with pigtail with strain relief	.35	UL/CSA	3	6'	Black	18/3	SVT	.95	.82	.73	.65
159409	17405B	3-conductor power cord with pigtail	.37	UL/CSA	3	6'	Black	18/3	SJT	2.95	2.49	2.25	1.95
38025	17238	3-conductor power cord with pigtail	.39	UL/CSA	3	8'	Black	18/3	SVT	2.95	2.49	2.25	1.95
102007	17535B	3-conductor power cord with pigtail	.49	UL/CSA	3	10'	Black	18/3	SVT	2.95	2.49	2.25	1.95
177375	E141445	3-conductor power cord with pigtail	.26	UL/CSA	3	3'	Black	16/3	SJT	.95	.85	.76	.69
196285	LL40378	3-conductor power cord with pigtail	.80	UL/CSA	3	10'	Black	16/3	SJT	3.95	3.49	2.95	2.49
189456	LL35737	3-conductor power cord with pigtail	.33	UL/CSA	3	3'	Beige	14/3	SJT	1.95	1.75	1.49	1.25
166924	17516	3-conductor power cord with pigtail	.67	UL/CSA	3	6' 7"	Black	14/3	SJT	2.95	2.25	1.65	1.39
100271	17629B	3-conductor power cord with pigtail	.88	UL/CSA	3	9'	Black	14/3	SJT	3.95	3.49	2.95	2.49
160995	17720	3-conductor power cord with pigtail, shielded	.44	UL/CSA	4	8'	Black	18/3	SVT	2.95	2.49	2.25	1.95
184815	17629BR	3-conductor right angle power cord with pigtail	.77	UL/CSA	5	7'	Black	14/3	SJT	3.95	3.15	2.35	1.99
103747	17248	3-conductor detachable power supply cord	.34	UL/CSA	6	6'	Gray	18/3	SVT	3.49	3.14	2.79	2.09
173542	17660GY	3-conductor detachable power supply cord, shielded	.42	UL/CSA	6	6'	Gray	18/3	SVT	1.95	1.75	1.49	1.39
159492	17501G	3-conductor detachable power supply cord	.45	UL/CSA	6	6'	Gray	18/3	SJT	1.29	1.19	1.09	.99
38041	17249	3-conductor detachable power supply cord	.37	UL/CSA	6	6'	Beige	18/3	SVT	3.49	2.95	2.49	1.95
38050	17250	3-conductor detachable power supply cord	.36	UL/CSA	6	6'	Black	18/3	SVT	3.75	3.25	2.75	2.25
161761	17742	3-conductor detachable power supply cord, shielded	.40	UL/CSA	6	6'	Black	18/3	SVT	3.95	3.49	2.75	2.49
132118	17500	3-conductor detachable power supply cord	.44	UL/CSA	6	6'	Black	18/3	SJT	3.95	3.49	2.95	2.49
117583	17502	3-conductor detachable power supply cord	.37	UL/CSA	6	8'	Gray	18/3	SVT	2.95	2.49	2.25	1.75
171096	17758	3-conductor detachable power supply cord	.60	UL/CSA	6	8'	Black	18/3	SJT	2.95	2.49	1.95	1.49
102023	17501V	3-conductor detachable power supply cord	.55	UL/CSA	6	10'	Black	18/3	SVT	4.25	3.75	3.25	2.49
192727	17501J	3-conductor detachable power supply cord	.64	UL/CSA	6	10'	Black	18/3	SJT	4.49	3.59	2.95	2.39
190625	37805	3-conductor detachable power supply cord, shielded	.75	UL/CSA	6	10'	Beige	18/3	SJT	4.25	3.75	3.25	2.49
163361	6952299	3-conductor detachable power supply cord	.33	UL/CSA	6	14'	Black	18/3	SJT	4.95	4.49	3.95	2.95
159361	17602	3-conductor detachable power supply cord	.57	UL/CSA	6	6'	Black	16/3	SJT	2.95	2.49	2.25	1.95
142607	17502	3-conductor detachable power supply cord, shielded	.63	UL/CSA	6	6'	Black	16/3	SJT	3.49	2.95	2.49	2.25
125541	17504	3-conductor detachable power supply cord	.71	UL/CSA	6	6' 7"	Black	14/3	SJT	3.95	3.25	2.75	2.25
117356	8120-6177	3-conductor detachable right angle power supply cord	.41	UL/CSA	8	6'	Gray	18/3	SVT	3.49	2.65	2.12	1.56
163416	17608G	3-conductor detachable right angle power supply cord	.36	UL/CSA	8	6'	Gray	16/3	SJT	1.85	1.65	1.50	—
38076	17250R	3-conductor detachable right angle power supply cord	.54	UL/CSA	8	6'	Black	18/3	SVT	3.49	2.95	2.49	1.95
173251	1725ORS	3-conductor detachable right angle power supply cord, shielded	.40	UL/CSA	8	6'	Black	18/3	SVT	2.95	2.49	1.95	1.49
177383	17507	3-conductor detachable right angle power supply cord	.66	UL/CSA	8	10'	Black	18/3	SJT	4.95	4.05	3.36	2.80
172312	8120-5395	3-conductor detachable right angle power supply cord	.73	UL/CSA	8	8'	Black	16/3	SJT	3.95	3.49	3.19	2.79
84937	17669-6	3-conductor detachable piggy backed computer power cord	.47	UL/CSA	9	6'	Black	18/3	SJT	6.95	6.25	5.59	4.95
177439	PECBGE	3-conductor computer power supply extension cord	.36	UL/CSA	10	6'	Beige	18/3	SVT	.29	.27	.25	.23
28468	PEC	3-conductor computer power supply extension cord	.36	UL/CSA	10	6'	Black	18/3	SVT	3.25	2.75	2.25	1.95
121291	PEC2	3-conductor computer power supply extension cord	.55	UL/CSA	10	8'	Black	18/3	SJT	3.95	3.15	2.51	1.99
175855	PECUL10	3-conductor computer power supply extension cord	.53	UL/CSA	10	10'	Black	18/3	SVT	4.49	3.95	3.49	2.95
177447	MPC1	3-conductor monitor power adapter cord	.16	UL/CSA	12	1'	Black	18/3	SVT	2.95	2.49	1.95	1.49
26382	MPC6	3-conductor monitor power adapter cord	.40	UL/CSA	12	6'	Black	18/3	SVT	3.19	2.79	2.49	2.29
177455	MPC10	3-conductor monitor power adapter cord	.52	UL/CSA	12	10'	Black	18/3	SVT	.29	.25	.23	—
173892	34J88T-1	3-conductor power cord w/ pigtail hospital grade (green dot)	.65	UL/CSA	13	8'	Black	18/3	SJT	1.25	.95	.90	.85
196277	E55333	3-conductor power cord w/ hospital grade male (green dot)	.56	UL/CSA	14	6'6"	Gray	18/3	SJT	5.95	5.35	4.79	4.29
132011	17006G	3-conductor power cord w/ hospital grade male (green dot)	.82	UL/CSA	14	10'	Gray	16/3	SJT	6.95	6.25	5.59	4.95
115078	17006	3-conductor power cord w/ hospital grade male (green dot)	.84	UL/CSA	14	10'	Black	16/3	SJT	6.95	6.25	5.59	4.95
173884	3472WJ698G	3-conductor power cord w/ hospital grade male rt ang (green dot)	.85	UL/CSA	15	9'	Gray	16/3	SJT	6.95	6.25	5.59	4.95

Thermoplastic Cord Jacket Type: SPT-1 (Flat): Light duty; SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service

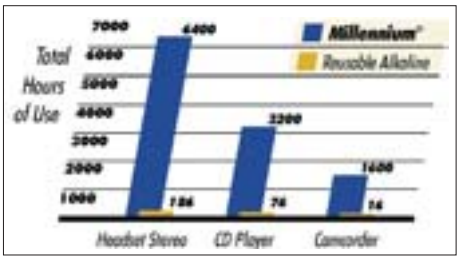
Part Number Color Code
New Sale Refurbished Closeout

Call for additional OEM PRICING – we carry major manufacturers.

Rechargeable NiMH Batteries & Battery Chargers

185252 185308 185295

The perfect solution for power hungry devices



- Replaces thousands of throwaway alkaline batteries
- Twice the power of NiCad batteries
- More than 1,000 charges

185279: 700mAH **185252/185261:** 1600mAH
185295: 5-hour charger

Part No.	Description	1	10	25	100
185279	AAA (2 pack)	$7.95	$7.19	$6.49	$5.95
185252	AA (2 pack)	7.95	7.19	6.49	5.95
185261	AA (4 pack)	13.95	12.49	11.25	9.95
197000	C (2-pack)	9.95	8.95	8.15	7.29
196998	D (2-pack)	9.95	8.95	8.15	7.29
197018	9-volt	9.95	8.95	8.15	7.29
185308	Compact chrgr	21.95	19.95	17.95	15.95
185295	Universal chrgr	21.95	19.95	17.95	15.95

Eveready® Energizer® Alkaline Batteries

198707 198715

198723 198731

Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single use Energizer® alkaline batteries for heavy drain and frequent use applications

✻ **Please order in increments of 4**

Part No.	Description	1	4	8	12
198707	AA	✻	$.82	$.74	$.68
198715	AAA	✻	.82	.74	.68
198723	C	✻	1.39	1.25	1.20

Part No.	Description	1	4
198731	9-volt	$2.59	$2.22

4 AA Battery Holder

- Solder tabs
- 6" wire lead with connector
- Size: 2.3"L x 2.5"W x 0.64"H

Part No.	Description	1	10	100	1000
105857	Plastic battery holder	$.89	$.69	$.59	$.49

30-Day Money-Back Guarantee
If you're not satisfied we'll take it back!
Details on page 185

Lithium, Silver Oxide, Zinc Chloride and Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.

146114 198791 150965 140783 11789 38543 33443 33371 33398

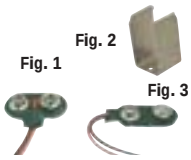
Part Number	Product Number	Description (V/Amp-hours/Dia.)	Battery Type	Terminals/Connection	Pricing 1	10	25	100
151087	AA	1.5V/0.7A-h/.545"	Zinc chloride	Barrel pressure fit (standard AA)	$.39	$.32	$.25	$.19
151095	GF6F22	9.0V/0.3A-h/1.0"L	Zinc chloride	Standard 9V with snaps	1.25	.99	.79	.65
140783	357	1.55V/1.60A-h/.454"	Silver oxide	Button cell	1.75	1.49	1.25	1.09
198740	377	1.5V/20mAh	Silver oxide	Button cell	.89	.85	.79	.75
150965	840	4.5V/600mA-h	Alkaline	Battery pack w/ connector (Apple®)	8.95	7.95	6.95	5.49
198791	MN1604	9.0V/.5A-h	Alkaline	9V (Duracell)	1.95	1.45	1.29	.99
198758	CR2016	3V/80mAh	Lithium	Coin cell	.79	.75	.70	.68
14162	CR2032	3V/180mA-h/.787"	Lithium	Coin cell (clock/memory)	1.25	1.09	.89	.65
11789	CR2325	3V/165mA-h/.906"	Lithium	Coin cell (clock/memory)	1.95	1.75	1.49	1.25
198766	CR2430	3V/80mAh	Lithium	Coin cell	1.59	1.40	1.35	1.27
33371	TL5101P	3.6V/.85A-h/.579"	Lithium	Barrel w/ leads (clock/memory)	5.95	5.35	4.79	4.25
126754	TL5101S	3.6V/.85A-h/.579"	Lithium	Half AA (Macintosh®)	7.95	6.95	6.25	5.59
33398	TL5104P	3.6V/1.9A-h/.579"	Lithium	Barrel w/ lead (clock/memory)	7.95	6.95	6.25	5.59
146114	TL2100S	3.6V/1.9A-h/.579"	Lithium	Barrel pressure fit (clock/memory)	6.95	5.95	4.95	4.49
33427	TL5242W	3.6V/1.9A-h	Lithium	Battery pack w/ plug (PC)	9.95	8.05	6.37	5.20
33443	TL5293W	6.0V/1.9A-h	Lithium	Battery pack w/ plug (PC)	10.95	9.95	8.95	7.95

Coin Cell Battery Holders

Part No.	Product No.	Description	1	10	100	500
38535	2S2032	Battery holder for CR2032 (PC mount)	$.59	$.49	$.35	$.29
38543	2S2325	Battery holder for two BR2325 or one 2354 (PC mount)	.75	.65	.55	.39

9 Volt Battery Snaps and Clip

- Use with standard 9 volt batteries • Fully insulated; contacts are nickel-plated brass • Female inner Dia. = 0.215"
- Leads are color-coded, stripped and pre-tinned • Snap: male outer diameter = 0.225" ✻ **10 piece minimum**



Part Number	Fig.	Description	Dimensions (in.) L	W	H	Pricing 1	10	100	1000
11279	1	3", 26 AWG, 6 prong battery snap	1.0	.50	–	✻	$.17	$.13	$.11
105793	2	Battery holder clip (9 volt)	.63	.71	1.2	.29	.25	.21	.18
109153	3	6", 26 AWG, 6 prong battery snap	1.0	.50	–	✻	.15	.13	.12
101469	3	10", 26 AWG, 4 prong battery snap	1.0	.50	–	.29	.26	.22	.12

Ni-Cad Batteries

Nickel-Cadmium batteries are rechargeable, sealed cells.

- Can be used for cyclic, trickle or float charge
- Recommend battery charger P/N 147598 , pg 173

126720 119116 101653

Part No.	Product No.	Description	Voltage	Amps	1	10	25	100
32627	S3300	AA	1.2V	500mA-h	$1.95	$1.75	$1.49	$1.25
126720	351FT	2-lead (pin)	3.6V	60mA-h	3.95	3.49	2.95	2.49
119116	3/V60R	3-lead (pin)	3.6V	60mA-h	3.95	3.49	2.95	2.49
101653	NA101-1	2-lead (eyelet)	3.6V	60mA-h	5.49	4.95	3.95	3.25

TEMPEST Lead Acid Batteries

155328 155336 159679

- .187" (except P/N 159679 – .470") color-coded terminals
- Sealed • UL approved • Rechargeable
- Two-year warranty

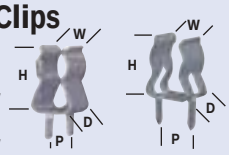
***159679:** Bolt terminals w/ bolt & nut set

Tempest is an ISO-9001 Certified Company

Part Number	Product Number	Nom. Volt.	Amp-Hrs.	Charging Voltage (V) Standby	Cyclic	Cross Reference Panasonic	YUASA	Eagle Picher	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10
155328	TR4-6	6	4A-h	6.75-6.9	7.2-7.5	LCR6VP	NP4-6	CF16V4	2.8 x 1.9 x 4.0	1.8	$10.49	$9.25
175054	TR10-6	6	10A-h	6.75-6.9	7.2-7.5	LCR6V10P	NP10-6	CFM6V10	5.9 x 2.0 x 3.8	4.3	15.95	14.49
159661	TR2.3-12	12	2.3A-h	13.5-13.8	14.4-15	LCR12V2.2P	NP2.3-12	CF12V1.5	7.0 x 1.3 x 2.3	1.9	12.95	11.49
155336	TR4-12	12	4A-h	13.5-13.8	14.4-15	LCR12V4PF	NP412	CF12V4	3.6 x 2.8 x 4.0	3.4	15.95	13.49
155344	TR7-12	12	7A-h	13.5-13.8	14.4-15	LCR12V7.2BP	NP712	CFM12V65	6.0 x 2.6 x 4.0	5.9	17.95	15.95
168188	TR12-12	12	12A-h	13.5-13.8	14.4-15	PS12120	—	CFM12V12	5.9 x 3.8 x 3.8	9.0	29.95	24.95
159679*	TR18-12	12	18A-h	13.5-13.8	14.4-15	LCR12V17BP	NPG18-12	CF12V18	7.1 x 3.0 x 6.6	13.8	39.95	33.95

Fuse Clips

5mm Miniature



- Accepts 5mm fuses

102859: Size: .37"H x .25"W x .21"D x .19"P
119280: Size: .33"H x .25"W x .20"D x .21"P

✻Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
102859	Front leads ..... ✻	$.12	$.09	$.05	
119280	Side leads ..... ✻	.14	.13	.11	

.25" Standard

- Accepts .25" standard fuse

102841: Size: .32"H x .27"W x .25"D x .23"P

PCB Type

Part No.	Description	1	10	100	1000
102841	Fuse clip (10A) ..... ✻	$.09	$.08	$.07	

Screw Mount

SALE

164700/164697: Size: .30"H x .30"W x .50"D

Part No.	Description	1	10	100	1000
164700	45° fuse clip ..... ✻	$.03	$.02	$.01	
164697	90° fuse clip ..... ✻	.03	.02	.01	

In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783 orange

.25" x 1.25" Standard

Part No.	AWG	Wire Lengths	Body Size(L)	Body Color	1	10	100
109321	22	3.5/3"	2.4"	black	$.59	$.53	$.47
102867	20	3/3"	2.2"	white ..	.59	.49	.35
151917	18	6/6"	2.4"	white ..	.79	.71	.64
108783	16	21/26"	2.2"	black ...	.79	.65	.49
108791	14	19/25"	2.5"	black	1.29	1.16	1.04

5mm x 20mm Miniature

Part No.	AWG	Wire Color	Body Size (L)	1	10	100
109330	20	Red	1.8"	$.55	$.45	$.35

5mm x 20mm Miniature Fuses

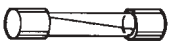
Slow Blow Fuses (250V) GMA Fuses

NEW

- For M4/M8 fuse holder terminal blocks, pg 62

Part No.	Amps	Mfr.	1	10	100	1000
197501	500mA	Various ✻	$.29	$.26	$.23	
197464	1 amp	Various ✻	.29	.26	.23	
197472	2 amp	Various ✻	.35	.32	.29	
197481	3.15 amp	Various ✻	.35	.32	.29	
197499	5 amp	Various ✻	.35	.32	.29	

Fast Acting Fuses (250V) GMA Fuses



- Recommended for new designs

✻Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	1	10	100	1000
103886	250mA	Various ✻	$.17	$.13	$.10	
102040	500mA	Various ✻	.17	.13	.10	
103907	1 amp	Various ✻	.17	.13	.10	
103915	2 amp	Various ✻	.17	.13	.10	
103923	3 amp	Various ✻	.17	.13	.08	
103931	5 amp	Various ✻	.17	.13	.08	

Panel Mount Fuse Holders

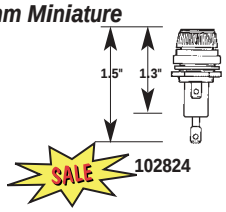
.25" x 1.25" Standard

- Straight solder terminal
- 10A @ 250VAC

120993: Size: 1.95"L x 0.71"Dia. (mounting hole: 0.58"Dia.)
18702: Size: 2.05"L x 0.71"Dia. (D-style mounting hole: 0.58"Dia. x 0.52" Flat)

Part No.	Cap Type	1	10	100
120993	Thumbscrew cap	$.69	$.62	$.55
18702	Thumbscrew cap, UL/CSA	.99	.85	.65

5mm x 20mm Miniature



- Straight solder terminal

150463: • 6A @ 250VAC
- Size: 1.5"L x 0.6"Dia. (mounting hole 0.5"Dia. x 0.43"Flat)

102824: • 10A @ 250VAC
- Size: 1.5"L x 0.6"Dia. (mounting hole 0.5"Dia.)

Part No.	Mounting Hole	1	10	100
150463	Thumbscrew cap	$.85	$.69	$.55
102824	Thumbscrew cap, UL/CSA	.99	.89	.80

.25" x 1.25" Standard Fuses

Slow Blow Fuses (250V) MDL/3AG Fuses

Part No.	Amps	Mfr.	1	10	100	1000
25654	250mA	Various	$.45	$.35	$.29	$.22
25689	500mA	Various	.45	.35	.29	.25
25638	1 amp	Various	.45	.35	.29	.22
25646	2 amp	Various	.45	.35	.29	.22
69534	3 amp	Various	.55	.45	.35	.29
25671	5 amp	Various	.45	.35	.29	.22
69569	10 amp	Various	.45	.35	.29	.22

Fast Acting Fuses (250V) AGC/3AG Fuses

- For ML10/13 fuse holder terminal blocks, pg 62

✻ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	1	10	100	1000
69403	250mA	Various ..... ✻	$.15	$.13	$.09	
10410	500mA	Various ..... ✻	.15	.13	.09	
197510	630mA	Various .... ✻	.15	.13	.09	
10372	1 amp	Various ..... ✻	.17	.15	.11	
197528	1.6 amp	Various .... ✻	.17	.15	.11	
10381	2 amp	Various ..... ✻	.17	.15	.11	
197536	2.5 amp	Various .... ✻	.17	.15	.11	
69438	3 amp	Various ..... ✻	.17	.15	.11	
197544	4 amp	Various .... ✻	.17	.15	.11	
10401	5 amp	Various ..... ✻	.17	.15	.11	
197552	6.3 amp	Various .... ✻	.17	.15	.11	
69462	10 amp	Various ..... ✻	.19	.17	.15	
186301	16 amp	Various .... ✻	.19	.17	.15	

5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D Style mounting hole: 1 ea. 0.5"Dia x .46" flat

Part No.	Description	1	10	100
102832	Fuse holder UL/CSA	$1.75	$1.57	$1.39

External ZIP Drive NiMH Battery Pack

- Powers your external zip drive for up to 3 hours • 6V @ 1A-h
- Built-in charging; plugs directly to wall outlet (2-prong plug) • Size: 4.5"L x 3.4W x 1.0"H

Part No.	Description	1	10
190166	External battery pack	$34.95	$31.49

NEW

Laptop Batteries

There is nothing worse than having a dead battery while finishing up your presentation on a trip, a spreadsheet for your boss, or finalizing your paper for school. The life of a portable computer is at the mercy of your battery. Get a spare or change that old battery you have been using for years.

Part No.	Product No.	Compatibility	Voltage	1	5
197704	LIB0145H	ThinkPad 1720i/1721i/390 series (NiMH)	9.6V@4500mAH	$158.95	$143.95
197712	LCO0102H	LTE 5000/5100/5150/5200/5250/5280/5300/5380 series (NiMH)	12V@2800mAH	138.95	125.49
197721	LAC0105H	EXTENSA 501DX/502DX/502T/503T/506T/508T series (NiMH)	9.6V@3500mAH	108.95	98.49
197739	LIB0135L	ThinkPad 770/770D/770E/770ED series (Li-ION)	10.8V@4050mAH	248.95	224.49
197747	LIB0139L	ThinkPad 600/600D/600E series (Li-ION)	10.8@3000mAH	228.95	206.49
197755	LTO0124H	Satellite 100/110/115/T2100/T2155 series (NiMH)	12V@2500mAH	108.95	98.49
197763	LCO0114L	Presario 1200/1600/1800 series (Li-ION)	14.4V@5400mAH	198.95	179.49
197771	LTO0102L	Satellite 300/400/1555/2060/4000 series (Li-ION)	10.8V@3600mAH	198.95	179.49
197780	LDE0215L	Latitude CP/CPI/CPX & Inspiron 3700/3800/6000/8000 series (Li-ION)	14.4V@2700mAH	208.95	188.49
197798	L0127HX	T1900/T2400/T4700/T4800/T4900 series (NiMH)	12V@3500mAH	118.95	107.49
197801	LIB0129H	ThinkPad 380/380D/380XD/385/385D series (NiMH)	8.4V@3500mAH	118.95	107.49

Part Number Color Code
New Sale Refurbished Closeout

Automobile Power Plugs

- Screw assembly
- Plugs directly into cigarette lighter
- Accepts .25" x 1.25" fuse (not included)
- All include strain relief

SALE

115001 161779 124759

164304

***124759:** pigtail end

Part No.	Description	1	10	100
115001	W/ fuse holder	$.99	$.79	$.65
161779	W/ strain relief only	.79	.71	.64
124759	W/ fuse & 3' cord*	1.75	1.49	.99
164304	W/ fuse (reversible)	.08	.07	—

Automobile Power Plug Splitter

- Input: cigarette adapter; non-fused
- Splits out into two 5" female automobile type receptacles

Part No.	Description	1	10	50
123182	Power plug splitter	$2.95	$2.49	$2.25

Cellular Phone Charger

- Charge your battery while driving
- 6' coiled cord
- Color: black

SALE

Part No.	For Motorola Models	1	10	25
122681	PT-500/5200/7200	$2.75	$2.56	$2.43

Audio Stereo Adapter

1/8" Female to 1/4" Male

- Headphone stereo adapter
- ⅛" female to ¼" male (stereo)
- Length: 2.3"

NEW

Part No.	Description	1	10	100
196082	Audio adapter	$1.19	$1.09	$.99

150-Watt DC-AC Inverters

188293

188285

- Input voltage: 12VDC
- Battery low shutdown
- Peak power surge capable
- Overload and high grade thermal protection

188293: • Output voltage: 120VAC
• Size: 5.5"L x 2.6"W x 1.6"H • Weight: 1.3 lbs.
188285: • Output voltage: 220VAC
• Size: 6.9"L x 4.0"W x 2.2"H • Weight: 1.8 lbs.

Part No.	Product No.	1	10	25
188293	G12-015-B2E	$49.95	$44.95	$39.95
188285	G12-015-E3E	39.95	36.05	32.44

Jameco's Low-Price Guarantee

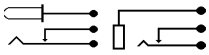
We'll match the advertised price of any like product. It's that simple!

Male & Female Power Jacks

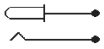
- Use with mating power plugs, below
- Dimensions do not include barrel

✻**Prepackaged: please order in increments of 10, 100 or 1000**

Terminals	Code
Solder eyelet	A
PC board	B
Mounting	**Code**
Panel	C
PCB	D
Panel & PCB	E
Cable	F



Circuit 1 Circuit 2

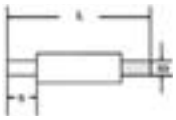


Circuit 3

Part Number	Product Number	Description (Jack)	Dimensions H x W x D (mm)	Type/ Mount	Circuit/ Terminals	Mating Plug (below)	Pricing 1	10	100	1000
101194	PP024	1.3 mm male	6.0 x 6.0 x 9.0	9/D	1/B	1.3 mm female	$.79	$.71	$.64	$.57
101178	PP014	2.1 mm male	10.9 x 9.0 x 14.5	1/D	1/A	2.1 mm female	.49	.44	.39	.30
137672	PP013	2.1 mm male	10.9 x 9.0 x 14.5	6/D	3/A	2.1 mm female	.59	.52	.44	.31
151589	DPJ-02IA	2.1 mm male	13.0 x 12.6 Dia.	8/C	1/A	2.1 mm female	.82	.74	.67	.53
151554	DPJ-026A	2.1 mm male	15.1 x 8.0 Dia.	7/E	1/A	2.1 mm female	1.25	1.12	.99	.89
159610	PJ1014A	2.1 mm male	35.8 x 12.6 Dia.	12/F	3/A	2.1 mm female	1.06	.96	.86	.69
109428	PJ025PCB	2.5 mm male	8.0 x 12.0 x 9.6	5/D	1/A	2.5 mm female	✻	.35	.31	.28
101186	PP014A	2.5 mm male	11.0 x 9.0 x 14.5	1/D	1/A	2.5 mm female	.45	.35	.29	.22
102091	PP15A	2.5 mm male	20.4 x 9.3 x 11.7	2/C	1/A	2.5 mm female	✻	.09	.08	.07
151562	DPJ-026	2.5 mm male	15.1 x 8.0 Dia.	7/E	1/A	2.5 mm female	.89	.75	.65	.49
159505	PJ1015A	2.5 mm male	35.8 x 12.6 Dia.	12/F	3/A	2.5 mm female	.89	.75	.65	.49
169498	PJ0253	2.5 mm female	9.0 x 7.9 x 10.8	3/E	2/A	2.5 mm male	✻	.04	.03	.02
164953	PJ0351N	3.5 mm female	9.9 x 10.2 x 15.4	10/D	2/A	3.5 mm male	✻	.08	.07	.06
101143	PJ0352	3.5 mm female	10.0 x 10.0 x 18.5	3/E	2/A	3.5 mm male	.39	.34	.26	.21
109495	PJ035PM	3.5 mm female	10.5 x 9.0 x 8.8	4/C	2/A	3.5 mm male	.39	.32	.25	.19
165729	PJ0354	3.5 mm female	8.9 x 5.7 Dia.	11/C	2/A	3.5 mm male	.49	.39	.32	.25

Male & Female Power Plugs

- Use with mating power jack found in table, above
- Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall transformers, pgs 71-73
- Use 24 AWG 2 conductor wire, P/N 100280, to make custom length power cables, pg 81
- Shield crimp tabs



Female (1) Male (2)

Strain Relief (A)

Female Right Angle (B)

Hard Plastic Strain Relief (C)

Part Number	Product Number	Description Plug ID x OD (mm)	Dimensions (mm) S(shaft) x L x ID(strain relief)	Type	Pricing 1	10	100	1000
71191	PP137	1.3 mm x 3.5 mm female plug	9.6 x 43.9 x 4.8 (black)	1/A	$.55	$.41	$.30	$.24
191484	PP049W	2.1 mm x 5.5 mm female plug	9.6 x 43.9 x 4.5 (white)	1/A	.49	.39	.32	.25
28759	PP049	2.1 mm x 5.5 mm female plug (P205)	8.5 x 41.4 x 4.6 (black)	1/A	.49	.39	.32	.25
147328	PP049L	2.1 mm x 5.5 mm female plug (P205L)	14.0 x 46.4 x 4.6 (black)	1/A	.45	.35	.29	.22
138587	PJ021R	2.1 mm x 5.5 mm female right angle plug	12.0 x 22.5 x 3.9 (black)	1/B	.69	.59	.39	.35
190537	PP109S	2.5 mm x 5.5 mm female plug (P206S)	9.0 x 43.5 x 4.8 (black)	1/A	.45	.35	.29	.17
28767	PP109	2.5 mm x 5.5 mm female plug (P206)	10.1 x 45.4 x 4.3 (black)	1/A	.45	.35	.29	.22
191492	PP109W	2.5 mm x 5.5 mm female plug	10.1 x 45.4 x 4.5 (white)	1/A	.49	.39	.32	.25
147336	PP109L	2.5 mm x 5.5 mm female plug (P206L)	13.6 x 47.5 x 4.8 (black)	1/A	.45	.35	.29	.22
168241	PP109N	2.5 mm x 5.5 mm female plug	13.7 x 36.5 x 3.9 (black)	1/C	.45	.35	.29	.22
101135	PJ1025	2.5 mm male plug (P201)	11.1 x 49.0 x 4.3 (black)	2/A	.25	.19	.17	.15
147459	PJ1025L	2.5 mm male plug (P201L)	10.5 x 48.0 x 5.0 (black)	2/A	.45	.41	.36	.33
101151	PJ1035	3.5 mm male plug (P202)	13.8 x 51.8 x 4.2 (black)	2/A	.45	.35	.29	.19
147344	PJ1035L	3.5 mm male plug (P202L)	14.1 x 51.0 x 5.2 (black)	2/A	.49	.44	.40	.36

Notebook Surge Protector

- Input voltage: 100-240VAC@50/60Hz (auto sensing)
- PNOTEPRO: C8 type connector (2-prong); PNOTEPRO3: C6 type connector (3-prong)
- Surge energy rating: PNOTEPRO – 120 joules; PNOTEPRO3 – 180 joules
- Input connection type: IEC 320 • RJ11 telephone protection
- Five-year standard warranty with $5,000 equipment protection policy • Size: 1.5"H x 1.3"W x 4.8"D

191821

Includes: Manual, 5' telephone cable and Velcro cord management

Part No.	Product No.	1	10
191821	PNOTEPRO	$39.99	$37.99
191812	PNOTEPRO3	39.99	37.99

3 and 15-Watt DC-to-DC Converters

- Short-circuit/overcurrent protection
- One-year warranty

Mean Well is an ISO-9001 Certified Company

155918

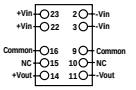


Fig. 1

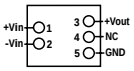


Fig. 2

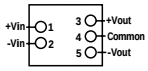


Fig. 3

Part Number	Product Number	Fig.	Wattage (W)	Input Voltage Range (VDC)	Output Voltage (VDC)	Ripple p-p (mV)	Output Current (mA)	Pins	Size L" x W" x H"	Pricing 1	10	50
155918	DCW03A05	1	3	9-18	+5/-5	100	300	8	1.2 x 0.7 x 0.5	**$24.95**	**$22.49**	**$19.95**
161701	DCW03A12	1	3	9-18	+12/-12	100	125	8	1.3 x 0.8 x 0.5	**24.95**	**22.49**	**19.95**
155715	SKE15A05	2	15	9-18	+5	50	3000	4	2.0 x 2.0 x 0.4	**29.95**	**26.95**	**23.95**
155707	SKE15A12	2	15	9-18	+12	60	1250	4	2.0 x 2.0 x 0.4	**27.95**	**24.95**	**22.49**
155694	SKE15A24	2	15	9-18	+24	80	625	4	2.0 x 2.0 x 0.4	**29.95**	**26.95**	**23.95**
161728	DKE15A12	3	15	9-18	+12/-12	60	625	5	2.0 x 2.0 x 0.4	**29.95**	**26.95**	**23.95**

25-Watt DC-to-DC Converters

- Input voltage: 9.2VDC-18VDC
- Voltage output adjustable
- Built-in EMI filter, low ripple noise
- Size: 3.9"L x 3.9"W x 1.5"H
- Short-circuit, over voltage and overload protection
- Input/output connector: screw down terminals
- Mating connectors: P/N 103587 or P/N 103595, pg 156

175812

Part No.	Product No.	Output	1	10	50	100
175661	SD25A5	**5V @ 5A**	**$37.95**	**$33.95**	**$29.95**	**$26.95**
175804	SD25A12	**12V @ 2.1A**	**39.95**	**35.95**	**32.95**	**29.95**
175812	SD25A24	**24V @ 1.1A**	**39.95**	**35.95**	**32.95**	**29.95**

3 to 220-Watt DC-to-DC Converters

** (188162)

SALE

- Over temperature, over voltage and short-circuit protection

Fig. 1

Fig. 2

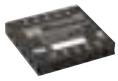


Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Part Number	Product Number	Fig.	Wattage (W)	Nominal Voltage	Input Range (VDC)	Output Voltage (VDC)	Ripple p-p (mV)	Output Current (A)	Pins	Size L" x W" x H"	Pricing 1	10	50
153736	EPC1053	6	3	12	7.5-16	9	100	0.250	12	1.2 x 0.7 x 0.5	**$2.95**	**$2.49**	**$2.25**
188904	AA10B048L150D	1	4	48	36-75	±15	75	0.3	5	2.0 x 1.0 x 0.4	**22.95**	**19.95**	**—**
185885	AA10B046L120DE	1	9	48	36-75	±12	75	0.375	6	2.0 x 1.0 x 0.4	**22.95**	**19.95**	**—**
188921	AA10B012L150SE	1	10	12	9-36	15	7.5	0.67	6	2.0 x 1.0 x 0.4	**24.95**	**—**	**—**
188939	AA10B048L120DE	1	10	48	36-75	±12	60	0.375	6	2.0 x 1.0 x 0.4	**22.95**	**19.95**	**—**
188883	AA10B048L150S	1	10	48	36-75	15	75	0.67	5	2.0 x 1.0 x 0.1	**22.95**	**19.95**	**—**
109276	AA9090A	7	21	16	0-20	+5.1/+12.6/-26	50/100/200	3.75/0.1/.04	32	3.6 x 1.6 x 0.8	**4.95**	**4.25**	**3.75**
188226	AA40C048L050D	3	40	48	36-75	±5	120	4	10	3.0 x 3.0 x 0.5	**19.95**	**17.95**	**—**
188955	AK60A024L240F02	2	50	24	18-36	24	720	2	8	2.3 x 2.4 x 0.5	**22.95**	**—**	**—**
188218	AK60A048L120F04G	2	50	48	36-75	12	150	4	8	2.4 x 2.3 x 0.5	**22.95**	**19.95**	**—**
188162	QBRB075NJ**	2	75	48	36-75	12	N/A	6.3	8	2.4 x 2.3 x 0.5	**24.95**	**22.49**	**—**
188171	AK60A048L150F05	2	75	48	36-75	15	150	5	8	2.4 x 2.3 x 0.5	**24.95**	**22.49**	**—**
188138	AK60A048L120F08G	2	100	48	36-75	12	150	8	8	2.4 x 2.3 x 0.5	**27.95**	**24.95**	**22.49**
188154	AK60A048L150F07G	2	100	48	36-75	15	150	7	8	2.4 x 2.3 x 0.5	**24.95**	**22.49**	**19.95**
188146	AK60A048L240F04G	2	100	48	36-75	24	150	4	8	2.4 x 2.3 x 0.5	**24.95**	**22.49**	**19.95**
188947	AK60C048L120F08GP4	4	100	48	36-75	12	600	8	9	2.4 x 2.3 x 0.5	**22.95**	**—**	**—**
188963	AL60A048L150F08	2	120	48	36-72	15	750	8	8	2.3 x 2.4 x 0.5	**22.95**	**—**	**—**
188197	AK60C048L050F20G	4	125	48	36-75	5	150	20	9	2.3 x 2.4 x 0.5	**24.95**	**22.49**	**19.95**
188200	BK60A048L120F13G	2	150	48	36-75	12	100	13	8	2.4 x 2.3 x 0.5	**24.95**	**22.49**	**19.95**
188189	AK80A024L150F12	5	220	24	18-36	15	100	12	10	4.5 x 2.4 x 1.1	**27.95**	**24.95**	**—**

See page 169 for our selection of low-voltage DC-DC converters

13.8VDC Precision Regulated Linear Power Supplies

- Input voltage: 115VAC @ 60Hz
- Fuse protected
- Illuminated rocker switch
- Heavy duty 5'8" 3-prong power cord
- Short circuit protection
- Output terminals: see page 60 for mating cigarette plugs and page 110 & 111 for mating banana terminal plugs

164179
Cigarette plug

163926
Banana terminal

135845
Banana & Cigarette

Part No.	Model No.	Watts	Output Current	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
164179	RPS1203C	41.4	3A	cigarette plug	3.3 x 5.1 x 7.5	5.8	**$14.95**	**$13.49**	**$11.95**
164161	RPS1203D	41.4	3A	banana terminals / cigarette plug	3.3 x 5.1 x 7.5	5.8	**13.95**	**12.49**	**10.95**
135845	RPS1204	55.2	4A	banana terminals / cigarette plug	6.7 x 5.2 x 3.2	5.5	**29.95**	**26.95**	**23.95**
163926	RPS1205	69.0	5A	banana terminals	3.8 x 5.6 x 9.0	8.9	**29.95**	**26.95**	**23.95**
136581	RPS1207†	96.6	7A	banana terminals	8.7 x 5.7 x 3.6	8.5	**59.95**	**53.95**	**48.95**
138667	38-381	138.0	10A	banana terminals (rear)	7.0 x 6.6 x 4.3	10.0	**69.95**	**62.95**	**56.95**
138675	52-192012	276.0	20A	banana terminals	10.0 x 7.8 x 4.4	15.9	**109.95**	**99.95**	**89.95**

† P/N 136581 includes overheating protection

Part Number Color Code
New Sale Refurbished Closeout

entrelec

DIN Rail Switching Power Supplies

The Systron® PS switching power supplies offer many advantages over conventional power supplies.

- Overcurrent switch with automatic restart, over-temperature switch-off and reset with disconnection of input voltage
- DIN rail mount compact modules
- Operating temp.: 0˚C to 55˚C
- Low weight
- Short circuit and overload protection
- Recommend DIN rail P/N 185965, below
- Constant output voltage with good regulation
- High efficiency
- Fused input
- Low heating

186343

186351

Part No.	Manufacturer No.	Output Voltage	Input Voltage (VAC @ Hz/VDC)	Input Current @ Nominal Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	100
186343	242341400	24VDC @ 0.5A	90-260 @ 47-440/105-260	0.3A(115V)/0.15A(230V)	0.9 x 3.1 x 4.7	0.5	$69.95	$62.95	$56.95
186351	242341800	24VDC @ 1.0A	90-260 @ 47-440/105-260	0.46A(115V)/0.27A(230V)	1.8 x 3.1 x 3.9	0.5	89.95	80.95	72.95

MW MEAN WELL

DIN Rail Switching Power Supplies

UL-508

- Low cost, high reliability
- Soft start circuit, limiting AC surge current
- Built in EMI filter, low ripple noise
- International AC input range
- Short circuit, overload, over voltage protected
- 100% full load burn in test

192698

192680

Part No.	Manufacturer No.	Output Voltage	Input Voltage (VAC @ Hz/VDC)	Input Current @ Nominal Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
192698	DR4512	12VDC @ 3.5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	$59.95	$53.95	$48.95
192680	DR4524	24VDC @ 2A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	59.95	53.95	48.95

DIN-Rail Mounted Fuse Holder Terminal Blocks

Fuse-Holder Terminal Block

186010:

- Standard block
- For use with 0.25" x 1" and 0.25" x 1.25" fuses, pg 59
- Black body
- 13mm block

SALE

186010

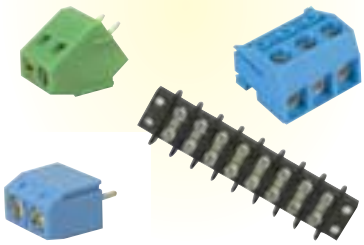
186511:

- End section for ML 10/13SF terminal blocks
- Color: black

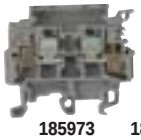
186511

Part No.	Entrelec No.	Type	1	10	100
186010	019909513	ML10/13SF	$7.25	$6.49	$5.75
186511	019963524	FEM13U	.95	.85	.75

See page 53 for Jameco's Selection of Terminal Blocks



Fuse-Holder Terminal Blocks


185973

185981 Shown w/ fuse – not included

186001

SALE

M4/8SF – DIN Rail Mounted

185973/185981/185990: Fuse holder terminal blocks

- For use with 5mm x 20mm fuses, see page 59
- Blocks with LED indicators are labeled "+" on the outside of the lever
- 8mm block
- Compression clamp
- Color: gray

185973: Standard block
185981: Equipped block w/ blown fuse indicator
185990: Equipped block w/ 24V LED diode and blown fuse indicator
186001: End section for M4/8SF terminal blocks

Part No.	Entrelec No.	Type	1	10	100
185973	011565725	M4/8SF	$4.65	$4.17	$3.75
185981	011566121	M4/8SF ..	7.99	7.18	6.46
185990	011566323	M4/8SF ..	7.25	6.52	5.86
186001	011695115	FEM8S	.39	.36	.32

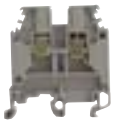
DIN Mounting Rail

DIN rail enables easy installation of components such as fuseable terminal blocks & power supplies configured for DIN mounting.

- Prepunched
- Material: zinc bichromate plate steel
- ***DIN rails sold in 1 meter (39") length***

Part No.	Entrelec No.	Type	1	10	100
185965	017322005	PR30	$4.85	$4.33	$3.89

DIN Rail-Mounted Terminal Blocks


185914

185922

185931

Universal mounting foot snaps onto standard DIN (P / N 185965, right) and DIN 2 rail profiles. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.

185949

- Material: molded thermoplastic
- Compression clamp
- Color: gray

185914: M4/6 Series

- Spacing 6mm (0.238")
- 22-12 AWG wire

185957

185922: M6/8 Series

- Spacing 8mm (0.315")
- 22-8 AWG wire

185931: M10/10 Series

- Spacing 10mm (0.394")
- 20-6 AWG wire

186327 Inset

185949: End section for standard DIN Rail-mounted terminal blocks

- Compatible with above terminal blocks

185957: End stop terminal block w/ terminal board identification

SALE

186327: RC610 Labeled 1-100

- Marker for blocks from the 6mm spacing (L=5mm)
- For use with M4/8SF and M4/6 series

Part No.	Entrelec No.	Type	1	10	100
185914	011511607	M4/6	$.89	$.80	$.72
185922	011511811	M6/8	1.25	1.09	.98
185931	011512017	M10/10	1.49	1.39	1.19
185949	011836816	FEM6	.39	.35	.31
185957	010300226	BAM	..69	..63	.56
186327	023303026	RC610 ..	3.49	3.15	2.83

Toll-Free Technical Support
Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

SKYNET 10-Watt Switching DC Power Supply

SALE

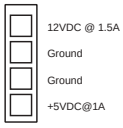
- **Output voltage: +5VDC @ 2A**
- Input voltage: 115/230VAC @ 50/60Hz
- Input connector: 5-position 3-pin 0.156" male locking headers
- Mating input connector: recommend P/N 104723, pg 52
- Output connector: 2-position 0.156" male locking headers
- Mating output connector: recommend P/N 176743, pg 52
- Size: 4.4"L x 1.6"W x 0.8"H

Part No.	Product No.	1	10	50	100
184866	SNP-0502-B	**$6.95**	**$5.95**	**$4.95**	**$3.95**

AUTEC 23-Watt Switching DC Power Supply

SALE

- **Output voltage: +5VDC @ 1A +12VDC @ 1.5A**
- Input voltage: 115/230VAC @ 50/60Hz
- Internal fuse: 2A @ 250V
- Input connector: 5-position 0.156" male headers
- Mating input connector: P/N 104723 (5-position 0.156" female housing, pg 52)
- Output connector: 4-position 0.156" male header
- Mating output connector: P/N 104715, pg 52
- Size: 5.0"L x 3.0"W x 1.1"H

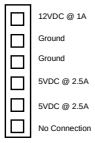


Part No.	Product No.	1	10	50	100
173374	UPS202002	**$6.95**	**$6.25**	**$5.59**	**$4.95**

SUPER MAC 24.5-Watt Switching DC Power Supply

SALE

- **Output voltage: +5V @ 2.5A +12V @ 1A**
- Input voltage: 100-240VAC @ 50/60Hz
- 2A @ 250V fuse on board
- Mating input connector: P/N 104432 (3-position housing connector, pg 52)
- Mating output connector: P/N 104731 (6-position housing connector, pg 52)
- Minimum load: all outputs 10% of rated load
- Size: 3.8"L x 2.5"W



Part No.	Product No.	1	10	50	100
166967	U002512010	**$8.95**	**$7.95**	**$6.95**	**$5.95**

SALE

Check Out Our Complete Line of Open-Frame Power Supplies

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50	100
184866	Skynet	SNP-0502-B*	10	+5/2	115/230 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 176743, pg 52)	UL/CUL/TUV	4.4 x 1.6 x 0.8	0.2	**$6.95**	**$5.95**	**$4.95**	**$3.95**
185244	Artesyn	NAL20-1130	16.3	+3.3/3, +8/0.6 -8/0.2	115 @ 60	3 prong receptacle (P/N 38050, pg 57)	Molex F cable (6-pin)	UL/CSA	5.5 x 3.0 x 1.1	0.4	**2.95**	**2.49**	**2.25**	**1.95**
189747	Tamura	79642191	17	+5/1, +12/1	120-230 @ 50/60	.156" M header (P/N 104432, pg 52)	.1" M shrouded header (4-pin)	—	4.7 x 2.4 x 1.1	0.4	**6.95**	**6.25**	**5.59**	**4.95**
146991	TDK	A530	19.4	+5/1, +12/1.2	100-115 @ 50/60	.156" M header (P/N 104432, pg 52)	.1" M locking header (4-pin)	UL	4.8 x 3.0 x 1.3	0.4	**3.95**	**3.55**	**3.19**	**2.89**
196664	Condor	GSC2024	20	+24/0.85	100-240 @ 50/60	.156" M header (P/N 104715, pg 52)	.156" M header (P/N 104715, pg 52)	UL/CSA/TUV	3.5 x 2.0 x 0.8	0.3	**6.95**	**6.25**	**5.59**	**4.95**
173374	Autec	UPS20-2002*	23	+5/1, +12/1.5	115/230 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 104715, pg 52)	UL/CSA/TUV	5.0 x 3.0 x 1.1	0.5	**6.95**	**6.25**	**5.59**	**4.95**
166967	Super Mac	U002512010*	24.5	+5/2.5, +12/1	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/TUV	3.8 x 2.5	0.4	**8.95**	**7.95**	**6.95**	**5.95**
168225	Converter Concepts	STRC0006	30	+5/2.7, +12/1.2 +35/0.035, -5/0.18	85-135 @ 57/63	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL	9.6 x 2.0 x 1.6	0.6	**2.95**	**2.55**	**2.25**	**1.95**
189536	Phihong	PSA4005	30	+5/6	90-264 @ 47/63	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE/CE	5.0 x 3.0 x 1.1	0.6	**7.95**	**6.95**	**6.25**	**5.59**
189712	Astec	RBS42	30	+5/6	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE	5.0 x 3.0 x 1.2	0.6	**8.95**	**7.95**	**6.95**	**6.25**
190174	Astec	AA19720	30	+5/4, +12/1, -12/0.1	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	Molex F cable (6-pin)	UL/CSA/TUV	5.7 x 2.5 x 1.2	0.4	**8.95**	**7.95**	—	—
190182	Phihong	PSM-34C	33	+5/3, +3.3/2, +11.5/1	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	Molex F cable (12-pin)	UL/CUL/TUV	5.0 x 3.4 x 1.3	0.7	**6.95**	**6.25**	**5.59**	—
190191	Astec	AA20720	34	+5/3, +3.3/2, +12/1	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	Molex F cable (12-pin)	UL/CSA/VDE	5.0 x 3.0 x 1.3	0.5	**6.95**	**6.25**	—	—
190203	Delta	LDPS378P	35	+5/2.7, +3.3/5, +12/0.5	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	.156" M header (12-pin)	UL/CSA/VDE	5.9 x 4.2 x 1.2	0.8	**9.95**	**8.95**	—	—
173551	Autec	UPS40-1002	40	+5/3, +12/2	115/230 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 104715, pg 52)	UL/CSA/TUV	7.0 x 2.0 x 1.2	0.5	**4.95**	**4.49**	**3.95**	**3.55**
172697	Skynet	IXM9543	40	+5/7, +12/0.3	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	.156" F housing (P/N 104838, pg 52)	UL/CSA/TUV	6.5 x 3.0 x 1.3	0.6	**5.95**	**5.35**	**4.79**	**4.29**
190220	Computer Products	NPS40-7608	40	+5/3, +12/2, -12/0.35	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE/CE	5.0 x 3.0 x 1.2	0.5	**10.95**	**9.95**	**8.95**	—
190211	Computer Products	NFN40-7630E	40	+5/3, +12/2, -12/0.35	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	Molex F cable (6-pin)	UL/CSA	6.1 x 3.2 x 1.5	1.2	**12.95**	**11.49**	**10.49**	**9.49**
190238	Phihong	PSA-4033	40	+5/3, +12/2, -5/0.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CUL/TUV	5.0 x 3.0 x 1.1	0.6	**12.95**	**11.49**	**10.49**	—
190254	Computer Products	NAL40-3215	40	+5/5.0, +12/1.0, -12/0.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA	5.0 x 3.0 x 1.3	0.4	**12.95**	**11.49**	**10.49**	—
190262	Computer Products	NAL40-3245	40	+5/5, +12/2 -12/0.5	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE	5.5 x 2.5 x 1.1	0.5	**12.95**	**11.49**	—	—
190271	Astec	SA40-1313	40	+5/5, +12/3, -12/0.35	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	Molex F cable (6-pin)	UL/CSA/VDE	5.0 x 3.0 x 1.3	0.5	**12.95**	**11.49**	**10.49**	**9.49**
190086	Artesyn	NFS407608	40	+5.1/3, +12/2, -12/0.35	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE/CE	5.0 X 3.0 X 1.2	0.5	**12.95**	**11.49**	**10.49**	**9.49**
28927	Astec	BM41012	41	+5/3.75, +12/1.5 -12/0.4	115 @ 50/60	Disconnect solderless terminals	.156" M header (P/N 104432, pg 52) (P/N 104715, pg 52)	UL/CSA/VDE	6.4 x 3.2 x 1.7	1.0	**14.95**	**13.49**	**11.95**	**9.95**

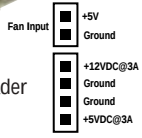
*** see photo above**

Higher-Wattage Power Supplies continued on pages 64 & 65

Part Number Color Code
New Sale Refurbished Closeout

AUTEC 51-Watt Switching DC Power Supply

- **Output voltage:**
  +5VDC @ 3A
  +12VDC @ 3A
- Input voltage: 115/230VAC @ 50/60Hz
- Input connector: 0.156" male header
- Mating input connector: P/N 104723, pg 52
- Output connector: 0.156" male header
- Mating output connector: P/N 104715, pg 52
- Size: 5.0"L x 3.0"W x 1.9"H • Weight: 0.7 lbs.

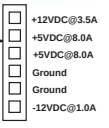


Part No.	Product No.	1	10	50
169050	UPS50-2002	$8.95	$7.95	$6.95

ASTEC 60-Watt Switching DC Power Supply

- **Output voltage:**
  +5VDC @ 8A
  +12VDC @ 3.5A
  -12VDC @ 1A
- Input voltage: 100-240VAC @ 50/60Hz
- Input connector: 0.156" male header
- Mating input connector: P/N 104432, pg 52
- Output connector: 0.156" male header
- Mating input connector: P/N 104731, pg 52
- Size: 5.0"L x 3.0"W x 1.6"H • Weight: 0.8 lbs.

SALE



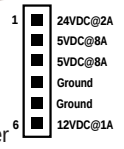
Part No.	Product No.	1	10	50	100
180970	LPT62 ...	$19.95	$17.95	$14.95	$12.95

ASTEC 60-Watt Switching DC Power Supply

- **Output voltage:**
  +5VDC @ 8A
  +12VDC @ 1A
  +24VDC @ 2A

SALE

- Input voltage: 100-250VAC @ 50/60Hz
- Input connector: 0.156" male header
- Mating input connector: P/N 104432, pg 52
- Output connector: 0.156" male header
- Mating input connector: P/N 104731, pg 52
- Size: 5.0"L x 3.5"W x 1.8"H • Weight: 0.8 lbs.



Part No.	Product No.	1	10	50	100
171281	LPT65 ..	$14.95	$13.49	$11.95	$10.95

SALE

Check Out Our Complete Line of Open-Frame Power Supplies

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50	100
163985	Samsung	PSPL430201A	43	+5/5., +12/1.5	100-120 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	(P/N 42067, pg 154) (P/N 114930, pg 154) (P/N 78326, pg 55)	UL/CUL	6.1 x 2.1 x 1.0	0.6	$12.95	$11.49	$9.95	$8.95
190297	Delta	SMP-43EP-10A	46	+5/8, +12/0.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	Molex F cable (6-pin)	UL/CSA	5.0 x 3.0 x 1.3	0.6	10.95	9.95	8.95	7.95
190300	Phihong	PSA50201	46	+5/8, +12/0.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	Molex F cable (6-pin)	UL/CUL/TUV	5.0 X 3.0 X 1.2	0.6	11.95	10.49	9.95	8.95
174641	Cherokee	CCH74C3	47	+3.3/9, +5/2.5, +5/1	100-240 @ 47/63	.156" M header (P/N 104432, pg 52)	.156" M header (7-pin .156" housing)	UL/CSA	5.0 x 3.0 x 1.3	0.7	4.95	4.49	3.95	3.55
184874	Skynet	BOCN061	48	+5/4, +3.3/1, +12/2	100-250 @ 47/63	3 prong receptacle (P/N 38050, pg 57)	.156" F housing conn. (P/N 104811, pg 52)	UL/CUL/TUV/CE	6.2 x 2.7 x 1.5	0.7	12.95	11.49	9.95	8.95
169050	Autec	UPS50-2002*	51	+5/3, +12/3	115/230 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 104715, pg 52)	UL/CSA/TUV	5.0 x 3.0 x 1.9	0.7	8.95	7.95	6.95	6.25
196453	Voltex	82-789	59	+5/6, +12/1.2 -12/1.2	100-240 @ 47-63	.156" M header (P/N 104723, pg 52)	.156" M header (cable included)	—	5.0 x 3.8 x 1.5	0.8	17.95	16.15	14.55	—
190668	Astec	LPS60	60	+5/12	100-250 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE/CE	5.0 x 3.0 x 1.5	0.7	33.95	32.95	31.95	30.95
195792	Digital Power	US70-421-60	60	+5/7,+12/4, -12/1	90-250 @ 47-63	.156" M header (P/N 104723, pg 52)	(2) .156" M header (P/N 104715, pg 52)	UL/CSA/TUV	5.0 x 3.2 x 1.5	0.8	19.95	17.95	—	—
180970	Astec	LPT62*	60	+5/8, +12/3.5, -12/1	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/TUV/ VDE/CE	5.0 x 3.0 x 1.6	0.8	19.95	17.95	14.95	12.95
171731	Delta	DPS-60MPB	60	+3.3/8, +5/9, +12/1, -12/0.2	90-270 @ 47/63	3 prong receptacle (P/N 38050, pg 57)	.156" M header (12-pin housing incl.)	UL/CUL/TUV	5.8 x 3.3 x 1.4	1.0	6.95	6.25	5.59	4.95
189966	Autec	UPS61-1004-T	60	+3.3/4, +5/2 +12/3, +32/0.5	115/230 @ 50/60	2 prong receptacle (P/N 189587, pg 57)	Molex F cable (10-pin)	CSA/CE	5.0 x 3.5 x 1.8	0.8	12.95	11.49	10.49	9.49
171281	Astec	LPT65*	60	+5/8, +12/1, +24/2	100-250 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/VDE	5.0 x 3.0 x 1.6	0.8	14.95	13.49	11.95	10.95
196234	Lambda	PW-G-0050	65	+3.3/10, +5/7	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (7-pin)	UL/CSA/TUV/CE	6.0 x 3.5 x 1.3	0.9	8.95	7.95	6.95	6.25
171740	Total Power	TPG65-32B	65	+5/6, +30/1.16	90-264 @ 47/63	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104731, pg 52)	UL/CSA/TUV	5.0 x 3.0 x 1.3	0.6	9.95	8.95	7.95	6.95
169068	Autec	UPS65-1051	65	+5/13	115/230 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 104723, pg 52) (P/N 104432, pg 52)	UL/CSA/VDE	6.0 x 3.5 x 1.5	0.8	9.95	8.45	7.95	6.95
190318	Powerswitch	PVI-65-30X	65	+5/5, +12/2, -12/1.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	3 drive connectors 3.5"	UL/CSA/TUV	6.2 x 4.0 x 1.1	0.8	14.95	13.49	—	—
182916	Artesyn	NLP70-9693	70	+3.3/10.5, +5/10.5, +12/0.65	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104432, pg 52) (P/N 104715, pg 52)	UL/CSA/VDE/CE	5.5 x 3.0 x 1.3	0.8	6.95	6.25	5.59	4.95
190676	Astec	LPS112	80	+5/16	100-250 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 104766, pg 52)	UL/CSA/VDE/CE	7.0 x 4.0 x 1.7	1.2	14.95	13.49	11.95	10.95
190342	Computer Products	NFS85-7632	80	+5/8, +12/2, -12/1.5	100-240 @ 50/60	.156" M header (P/N 104723, pg 52)	Molex F cable (13-pin)	UL/CSA	7.0 x 4.2 x 1.3	1.3	17.95	15.95	13.95	—
190351	Power One	SP644	82.5	+3.3/19.5, +12/3	100-250 @ 50/60	.156" M header (P/N 104432, pg 52)	Molex F cable (12-pin)	UL/CSA/TUV	6.0 x 4.0 x 1.3	0.8	14.95	13.49	—	—
196251	Lambda	PW-G-00790	85	+3.3/15, +5/7	100-240 @ 50/60	4" wires with disconnect terminal	.156" F housing (12-position)	UL/CSA/TUV/CE	8.0 x 3.5 x 1.3	1.2	12.95	11.49	9.95	8.95
157913	Digital Power	US100-313	90	+3.3/6, +5/12, +12/0.8	90-250 @ 47/63	.156" M header (P/N 104766, pg 52) (P/N 104715, pg 52)	.156" M header (P/N 104723, pg 52)	UL/CSA/TUV	6.0 x 3.2 x 1.0	1.0	6.95	6.25	5.59	—

* see photo above

Lower-Wattage Power Supplies on page 63 *Higher-Wattage Power Supplies on page 64*

EOS 130-Watt Switching DC Power Supply

- **Output voltage:**
  +3.3VDC @ 16A
  +5VDC @ 14A
  +12VDC @ 1.5A
  -5VDC @ 1.5A
- Input voltage: 100–240VAC @ 50/60Hz
- 3.5A @ 250V fuse
- Input connector: 3-position 0.156" male locking headers
- Mating input connector: P/N 104432, pg 52
- Output connector: 8-position 0.09" male header or 6-position 0.197" terminal blocks
- Size: 5.1"L x 3.1"W x 0.8"H • Weight: 0.6 lbs.

SALE

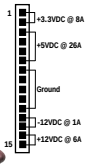
Part No.	Product No.	1	10	50
185447	VLT130-4110	$24.95	$22.49	$19.95

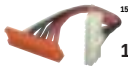
CHEROKEE 150-Watt Switching DC Power Supply

- **Output voltage:**
  +3.3VDC @ 8A, +5VDC @ 26A
  +12VDC @ 6A, -12VDC @ 1A
- Input voltage: 100–240VAC @ 47-63Hz
- Input connector: 5-position 0.156" male headers • 4A@250V fuse
- Output conn.: 15-position 0.156" male locking headers and 5-position 0.100" male locking headers
- Mating output conn.: P/N 104766, 104723, and P/N 163686, pg 52
- Size: 8.0"L x 4.3"W x 1.5"H • Weight 2.1 lbs.

SALE

188971



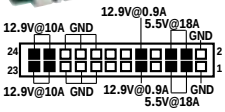


189405

Part No.	Product No.	1	10	50	100
188971	MQT154A1	$24.95	$22.49	$19.95	$17.95
189405	Power cord ..	2.95	2.75	2.49	—

DIGITAL POWER 250-Watt Switching DC Power Supply

- **Output voltage:**
  +5.5VDC @ 18A
  +12.9VDC @ 10A
  +12.9VDC @ 0.9A
- Input voltage: 90-250VAC @ 47/63Hz
- 5A @ 250VAC fused
- Input connector: Molex type 6-position double row blind mating right angle header



- Output connector: Molex type 24-position double row blind mating right angle header
- Minimum load: all outputs at 10% of rated load
- Size: 10.0"L x 4.5"W x 1.9"H • Weight: 1.9 lbs.

Part No.	Product No.	1	10	50	100
171643	USS256-351	$27.95	$24.95	$22.49	$19.95

Check Out Our Complete Line of Open-Frame Power Supplies

SALE

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50	100
190369	Astec	AA19820	90	+5/15, +12/1	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	Molex F cable (8-pin)	UL/CSA/VDE	8.0 x 3.5 x 1.9	1.3	$14.95	$13.49	—	—
190377	Lambda	SCQ12003054	96	+3.3/7, +5/5, +48/1, -48/1	100-240 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (12-pin)	UL/CSA	7.0 x 4.0 x 1.1	1.1	9.95	8.95	7.95	6.95
185800	EOS	VLT1001001	100	+13.5/6.6	90-264 @ 47-63	.156" M header (P/N 104432, pg 52)	.156" M header (12-pin)	UL/CE	5.0 x 3.0 x 0.9	0.5	19.95	—	—	—
185455	EOS	VLT100-4000	100	+5.2/12, +12/4, -5/0.8, -12/-0.8	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (2 P/N 104731, pg 52)	UL/VDE/CE	5.1 x 3.1 x 0.8	0.6	24.95	22.49	19.95	18.19
190385	Digital Power	USS100-245	100	+5/20	90-250 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (14-pin)	UL/CSA/TUV	5.0 x 3.2 x 1.5	0.7	17.95	15.95	—	—
181198	Artesyn	NFS110-7601P	103	+5.1/8, +12/4.5, -5/0.5, -12/0.5	100-240 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (P/N 104432, pg 52); (P/N104766, pg 52)	UL/CSA/VDE/CE	7.0 x 4.2 x 1.8	1.3	24.95	22.49	19.95	17.95
190393	LiteOn	32267	110	+5/20, +12/2	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	Molex F cable (8-pin)	UL/CUL	7.7 x 3.5 x 1.9	1.1	17.95	15.95	—	—
189552	Phihong	PSA110402	110	+5/9, +12/0.75, +12/3.5, -12/0.75	90-264 @ 47/63	.156" M header (P/N 104723, pg 52)	.156" M header (2 P/N 104731, pg 52)	UL/CSA/TUV	6.8 x 3.6 x 1.7	1.4	22.95	20.49	18.49	16.95
189528	Phihong	PSA110403	110	+5/9, +12/0.75, +24/1.75, -12/0.75	115/230 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" M header (2 P/N 104731, pg 52)	UL/CSA/TUV	6.8 x 3.6 x 1.7	1.4	19.95	17.95	15.95	—
190422	Astec	AA20140	120	+3.3/16, +5/20, +12/2, -12/0.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	AT housing (24-pin)	UL/CSA/VDE	7.0 x 4.2 x 1.5	1.1	19.95	17.95	15.95	13.95
185480	EOS	VLT130-3100-S2	130	+3.3/16, +5/14, +12/1.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.197" term. block 6-pin or .09" M header 8-pin	UL/VDE/CE	5.1 x 3.1 x 0.8	0.6	19.95	17.95	15.95	—
185543	EOS	VLT130-4110-S16	130	+3.3/16, +5/14, +12/1.5, -5/1.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.197" term. block 6-pin or .09" M header 8-pin	UL/VDE/CE	5.1 x 3.1 x 0.8	0.6	24.95	22.49	19.95	—
185447	EOS	VLT130-4110*	130	+3.3/16, +5/14, +12/1.5, -12/1.5	100-240 @ 50/60	.156" M header (P/N 104432, pg 52)	.197" term. block 6-pin or .09" M header 8-pin	UL/VDE/CE	5.1 x 3.1 x 0.8	0.6	24.95	22.49	19.95	—
171686	Power One	MPU1503300S240	135	+3.3/30, +12/3	85-250 @ 50/60	.156" M header (P/N 104723, pg 52)	.156" F housing (12-pin)	—	8.1 x 4.2 x 1.5	1.9	7.95	6.95	6.25	—
190406	Power One	PU1503300S2	145	+5.1/26, +12/1	85-250 @ 50/60	.156" M header (P/N 104723, pg 52)	Molex F cable (24-pin)	UL/CSA/TUV	8.0 x 4.2 x 1.5	1.6	19.95	17.95	—	—
189721	Phihong	PSA1507U	150	+5/15, +12/6, +12/1	100-240 @ 50/60	3 pos. term. blocks (P/N 103587, pg 156)	8 pos. term. blocks (P/N 103587, pg 156)	UL/CSA/TUV	7.9 x 3.9 x 1.5	1.9	24.95	22.49	—	—
188971	Cherokee	MQT154A1*	150	+3.3/8, +5/26, +12/6, -12/1	100-240 @ 47/63	.156" M header (P/N 104723, pg 52)	.1" / .156" headers (P/N 189405, below) (P/N 104723, pg 52) (P/N 104766, pg 52)	UL/CSA	8.0 x 4.3 x 1.5	2.0	24.95	22.49	19.95	17.95
190414	Advanced Power	APS175V1-33	175	+5/30, +12/15, +24/0.1	100-240 @ 50/60	2 slip on wires	Molex F cable (12-pin)	UL/CUL/TUV/CE	8.0 x 4.2 x 2.1	1.8	22.95	20.49	—	—
171643	Digital Power	USS256-351*	250	+5.5/18, +12.9/10 +12.9/0.9	90-250 @ 47/63	6-pin double row right angle header	24-pin double row right angle header	UL/CUL/TUV/CE	10.0 x 4.5 x 1.9	1.9	27.95	24.95	22.49	19.95
196461	TODD	MAX3541205AC	350	+5/50, +12/12 -5/2, -12/4	115/230 @ 50/60	3-position screw terminals	5-position screw terminals	TUV	9.0 x 5.0 x 2.5	2.0	34.95	31.45	28.25	25.45

* see photo above

Power Supply Cable Assembly and Cord for Above Power Supplies

Part Number	Reference Number	Description	Color	AWG/Conductor	Certification	Cord Length	Wt. (lbs.)	Cord Type	Pricing 1	10	50
189405	188971	Power supply cable assembly for P/N 188971 power supply	Multi	18/13	UL/CSA	8"	0.06	—	$2.95	$2.75	$2.49
189587	189966	Power supply cord for P/N 189966 power supplies, pg 65	Black	18/2	UL	6'	0.2	SPT2	2.95	2.39	2.05

Lower-Wattage Power Supplies on pages 63 & 64

Part Number Color Code
New Sale Refurbished Closeout

Special Order Any Mean Well Power Supply **Mean Well Authorized Distributor** **Mean Well is an ISO-9001 Certified Company**

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over-voltage protected • UL approved • MTBF rated • Two-year warranty

25-Watt Single & Dual Output

- Input voltage: 85-246VAC @ 47-63Hz
- Mating connectors: P/N 104432 and P/N 104715, pg 52
- No minimum load required
- Size: 4.2"L x 2.4"W x 1.2"H

148603

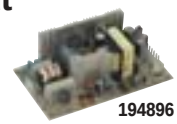
MTBF Hours vs Operating Temperature at 100% Load

Operating Temp.	PS-25	PS-65	PD-25
50˚C	79,978 hrs.	14,104 hrs.	105,120 hrs.
25˚C	315,360 hrs.	69,642 hrs.	376,680 hrs.

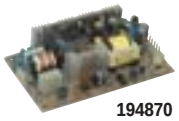
Part No.	Product No.	Watts	Output	1	10	25
148603	PS25-12	25.2	+12VDC @ 2.1A	$24.95	$22.49	$19.95
148689	PD25-12 (Dual)	24.0	+12VDC @ 1.0A -12VDC @ 1.0A	22.95	19.95	17.95

45 & 65-Watt Dual Output

- Input voltage: 90-264VAC @ 47-440Hz; 120-370VDC
- Ripple and noise: 50mV – 150mV peak to peak
- Line regulation: ±1-2%
- DC voltage adjustment: CH1: +10, -5%
- Mating input connector: P/N 104432, pg 52
- Mating output connector: P/N 104731, pg 52



194896



194870

PD45 Series Size: 5.0"L x 3.0"W x 1.1"H

Part No.	Product No.	Watts	Output	1	10	25
194861	PD45A	40.0	5VDC @ 5.0A 12VDC @ 2.5A	$24.95	$22.49	$19.95
194870	PD45B	44.8	5VDC @ 5.0A 24VDC @ 1.8A	24.95	22.49	19.95

PD65 Series Size: 5.0"L x 3.0"W x 1.5"H

Part No.	Product No.	Watts	Output	1	10	25
194888	PD65A	61.1	5VDC @ 7.0A 12VDC @ 3.2A	$29.95	$26.95	$23.95
194896	PD65B	65.5	5VDC @ 6.0A 24VDC @ 2.6A	29.95	26.95	23.95

45-Watt Triple Output

- Input voltage: 90-264VAC @ 47-440Hz
- Mating input connector: P/N 104432, pg 52
- Mating output connector: P/N 104731, pg 52
- Input auto ranging • Data sheet included
- Minimum load: all outputs at 10% of rated load
- Size: 5.0"L x 3.0"W x 1.6"H • One-year warranty

Part No.	Product No.	Watts	Output	1	10	25	100
88401	PT45B	45	+5VDC @ 3.0A +12VDC @ 2.0A -12VDC @ 0.3A	$34.95	$31.49	$27.95	$24.95

65-Watt Single Output

- Input voltage: 90-264VAC @ 47-440Hz
- Mating connectors: P/N 104432 & P/N 104731, pg 52
- No minimum load required
- Size: 5.0"L x 3.0"W x 1.6"H • Weight: 0.6 lbs.

148638

Part No.	Product No.	Watts	Output	1	10	25
148638	PS65-12	62.4	12VDC @ 5.2A	$29.95	$26.95	$23.95
148646	PS65-24	64.8	24VDC @ 2.7A	29.95	26.95	23.95

100-Watt Single Output

With PFC – Power Factor Correction

- 100% full load burn-in test • Operating temp.: 0-50˚C
- PFC: 98% @ 115VAC; 95% @ 230VAC
- No minimum load requirement • Compact size, lightweight
- Overload, over voltage and short circuit protection
- Input volt.: 88-264VAC @ 47-63Hz
- Size: 8.7"L x 2.4"W x 1.1"H • Weight: 0.8 lbs.

173471

Part No.	Product No.	Watts	Output	1	10	25
173471	LPS100-12	100.8	12VDC @ 8.4A	$49.95	$44.95	$39.95
173462	LPS100-24	100.8	24VDC @ 4.2A	49.95	44.95	39.95

MTBF (hours) vs Operating Temperature/Load

Product Numbers: S-25, S-40, S-60, S-100F, S-150, D-60, D-120, T-60, Q-120

Operating Temp.	50˚C	40˚C	30˚C
Load 100%	10,000	30,000	90,000
Load 60%	30,000	80,000	200,000

Product Numbers: S-240, SP-300

Operating Temp.	50˚C	40˚C	30˚C
Load 100%	45,000	90,000	180,000
Load 60%	62,500	125,000	250,000

25-Watt Single Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- MTBF table, see above • No minimum load required
- Size: 3.9"L x 3.8"W x 1.4"H • Weight: 0.8 lbs.

123254

Part No.	Product No.	Watts	Output	1	10	25	100
123246	S-25-5	25.0	5VDC @ 5.0A	$34.95	$31.95	$28.95	$25.95
123254	S-25-12	25.2	12VDC @ 2.1A	34.95	31.95	28.95	25.95
123262	S-25-15	25.5	15VDC @ 1.7A	34.95	31.95	28.95	25.95
123271	S-25-24	26.4	24VDC @ 1.1A	34.95	31.95	28.95	25.95

40-Watt Single Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- MTBF table, see above
- No minimum load required
- Size: 5.1"L x 3.9"W x 1.5"H • Weight: 1.0 lb.

123289

Part No.	Product No.	Watts	Output	1	10	25	100
123289	S-40-5	40	5VDC @ 8.0A	$39.95	$35.95	$32.95	$29.95
123297	S-40-12	42	12VDC @ 3.5A	39.95	35.95	32.95	29.95
123318	S-40-24	43	24VDC @ 1.8A	39.95	35.95	32.95	29.95

60-Watt Single Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- MTBF table, see above
- No minimum load required
- Size: 6.3"L x 3.8"W x 1.5"H • Weight: 1.2 lbs.

123351

Part No.	Product No.	Watts	Output	1	10	25	100
123326	S-60-5	60	5VDC @ 12A	$44.95	$39.95	$35.95	$32.95
123334	S-60-12	60	12VDC @ 5A	44.95	39.95	35.95	32.95
123342	S-60-15	60	15VDC @ 4A	44.95	39.95	35.95	32.95
123351	S-60-24	60	24VDC @ 2.5A	44.95	39.95	35.95	32.95

60-Watt Dual Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- MTBF table, see above
- Minimum load: all outputs at 10% of rated load
- Size: 6.3"L x 3.8"W x 1.5"H • Weight: 1.2 lbs.

123457

Part No.	Product No.	Watts	Output	1	10	25	100
123457	D-60A	56	5VDC @ 4A, 12VDC @ 3A	$49.95	$44.95	$39.95	$35.95
123465	D-60B	58	5VDC @ 3A, 24VDC @ 1.8A	49.95	44.95	39.95	35.95

Special Order Any Mean Well Power Supply | **Mean Well Authorized Distributor** | Mean Well is an ISO-9001 Certified Company

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over-voltage protected • UL approved • MTBF rated • Two-year warranty

60-Watt Triple Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- MTBF table, opposite page • Weight: 1.2 lbs.
- Minimum load: all outputs at 10% of rated load • Size: 6.3"L x 3.8"W x 1.5"H

123481

Part No.	Product No.	Watts	Output	1	10	25	100
123481	T-60B	61	5VDC @ 5A, 12VDC @ 2.5A, -12VDC @ 0.5A	$49.95	$44.95	$39.95	$35.95
123490	T-60C	63	5VDC @ 5A, 15VDC @ 2.0A -15VDC @ 0.5A	49.95	44.95	39.95	35.95

60-Watt Quad Output

- Input voltage: 85-264VAC @ 47-63Hz
- Line regulation: 0.5%-1.0%
- Ripple and noise: 100-120mV peak to peak
- DC voltage adjustment: CH 1: +10, -5%
- Mating input/output connector: P/N 103587, pg 156
- Minimum load: all output at 10% rated load
- Size: 6.3"L x 3.9"W x 1.5"H • Weight: 1.2 lbs.

Part No.	Product No.	Watts	Output	1	10	25	100
147045	Q60	60	+5VDC @ 5.5A; -5VDC @ 0.5A +12VDC @ 2A; -12VDC @ 0.5A	$49.95	$44.95	$39.95	$35.95

120-Watt Dual Output

- Input voltage: 90-130VAC or 180-260VAC
- Switch selectable input
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- Minimum load: all outputs at 10% of rated load
- MTBF table, opposite page
- Size: 8.0"L x 4.4"W x 2.0"H • Weight: 1.9 lbs.

132409

Part No.	Product No.	Watts	Output	1	10	25	100
132409	D-120A	120	5VDC @ 12A, 12VDC @ 5A	$59.95	$53.95	$47.95	$43.95
132396	D-120B	126	5VDC @ 6A, 24VDC @ 4A	59.95	53.95	47.95	43.95

120-Watt Quad Output

- Input voltage: 88-132VAC or 176-264VAC @ 47-63Hz
- Switch selectable input
- Mating input/output conn.: P/N 103587, pg 156
- Minimum load: all outputs at 10% of rated load
- MTBF table, opposite page
- Size: 8.0" x 4.4"W x 2.0"H
- Weight: 2.0 lbs.

132388

Part No.	Product No.	Watts	Output	1	10	25
132388	Q-120B	120	+5VDC @ 11A; -5VDC @ 1A +12VDC @ 4A; -12VDC @ 1A	$69.95	$62.95	$56.95
132370	Q-120D	124	+5VDC @ 8A; 24VDC @ 2A +12VDC @ 2A; -12VDC @ 1A	69.95	62.95	56.95

75-Watt Single Output

With PFC – Power Factor Correction

- Input range: 85-264VAC @ 47-63Hz; 120-370VDC
- Ripple and noise: 80mV -100mV peak to peak
- DC voltage adjustment: CH1:+10%,-5%
- Soft start-circuit, limiting AC surge current
- Mating input/output connector: P/N 103587, pg 156
- Line regulation: ±5%
- Size: 7.0"L x 3.9"W x 1.3"H • Weight: 1.2 lbs.

194829

Part No.	Product No.	Watts	Output	1	10	25	100
194829	SP75-5	75	5VDC @ 15A	$64.95	$58.95	$52.95	$47.95
194837	SP75-12	75	12VDC @ 6.3A	64.95	58.95	52.95	47.95
194845	SP75-15	75	15VDC @ 5A	64.95	58.95	52.95	47.95
194853	SP75-24	75	24VDC @ 3.2A	64.95	58.95	52.95	47.95

100-Watt Single Output

5V, 7.5V, 15V, 24V and 48V also available!

- Input voltage: 95 to 130VAC or 190 to 260VAC
- Jumper selectable input
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- MTBF table, opposite page
- No minimum load required
- Size: 7.8"L x 3.9"W x 1.5"H
- Weight: 1.4 lbs.

Part No.	Product No.	Watts	Output	1	10	25	100
123385	S-100F-12	102	12VDC @ 8.5A	$49.95	$44.95	$39.95	$35.95

100-Watt Single Output

- Input voltage: 86-264VAC @ 47-63Hz; 120-370VDC
- Ripple and noise: 100mV – 150mV peak to peak
- DC voltage adjustment: CH1: +10, -5%
- Mating input/output connector: P/N 103587, pg 156
- Line regulation: ±5%
- Size: 6.7"L x 3.7"W x 1.8"H
- Weight: 1.5 lbs.

With PFC – Power Factor Correction

194790

Part No.	Product No.	Watts	Output	1	10	25	100
194790	SP100-5	100	5VDC @ 20A	$74.95	$67.95	$60.95	$54.95
194802	SP100-12	100	12VDC @ 8.5A	74.95	67.95	60.95	54.95
194811	SP100-24	100	24VDC @ 4.2A	74.95	67.95	60.95	54.95

150-Watt Single Output

9V, 13.5V and 27V also available!

- Input voltage: 90 to 130VAC or 180 to 260VAC
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- Jumper selectable input
- MTBF table, opposite page
- No minimum load required
- Size: 7.8"L x 4.3"W x 2.0"H
- Weight: 1.8 lbs.

123449

Part No.	Product No.	Watts	Output	1	10	25	100
123393	S-150-5	150	5VDC @ 30A	$59.95	$53.95	$47.95	$43.95
123414	S-150-7.5	150	7.5VDC @ 20A	59.95	53.95	47.95	43.95
123422	S-150-12	150	12VDC @ 12.5A	59.95	53.95	47.95	43.95
123431	S-150-15	150	15VDC @ 10A	59.95	53.95	47.95	43.95
123449	S-150-24	156	24VDC @ 6.5A	59.95	53.95	47.95	43.95
167345	S-150-48	154	48VDC @ 3.2A	59.95	53.95	47.95	43.95

150-Watt Single Output

With PFC – Power Factor Correction

- Input voltage: 85-264VAC @ 47-63Hz
- PFC: 98% @ 115VAC; 95% @ 230VAC
- Overload, over voltage and short circuit protection
- Mating input/output connector: P/N 103587, pg 156
- No minimum load requirement
- 100% full load burn-in test
- Compact size, lightweight
- Operating temp.: 0-50˚C
- Size: 7.8"L x 3.9"W x 2.0"H • Weight: 1.7 lbs.

173403

Part No.	Product No.	Watts	Output	1	10	25
173420	SP150-12	150	12VDC @ 12.5A	$79.95	$71.95	$64.95
173411	SP150-15	150	15VDC @ 10A	69.95	62.95	56.95
173403	SP150-24	150	24VDC @ 6.5A	79.95	71.95	64.95

More Mean Well Power Supplies continued on next page.

We'll Send It Today
99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Part Number Color Code
New Sale Refurbished Closeout

Special Order Any Mean Well Power Supply **Mean Well Authorized Distributor** **Mean Well is an ISO-9001 Certified Company**

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over-voltage protected • UL approved • MTBF rated • Two-year warranty

200-Watt Single Output

With PFC – Power Factor Correction

194773

- Input voltage: 85-264VAC @ 47-63Hz; 120-370VDC
- Line regulation: ±5%
- Ripple and noise: 100mV – 150mV peak to peak
- DC voltage adjustment: CH1: +10, -5%
- Soft-start circuit, limiting AC surge current
- Mating input/output connector: PN 103587, pg 156
- Size: 7.8"L x 3.9"W x 2.0"H • Weight: 1.9 lbs.

Part No.	Product No.	Watts	Output	1	10	25
194773	SP200-12	200.4	12VDC @ 16.7A	$89.95	$80.95	$72.95
194781	SP200-24	201.6	24VDC @ 84A	89.95	80.95	72.95

240-Watt Single Output

5V, 7.5V, 15V and 30V also available!

137648

- Input voltage: 88 to 132VAC or 176 to 264VAC automatic switching
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- Automatic fan controls internal temperature
- MTBF table, see right
- Size: 8.0"L x 3.7"W x 2.6"H • Weight: 2.5 lbs.

Part No.	Product No.	Watts	Output	1	10	25	100
137648	S-240-12	216	12VDC @ 18A	$109.95	$99.95	$89.95	$80.95
137656	S-240-24	240	24VDC @ 10A	109.95	99.95	89.95	80.95
167337	S-240-48	240	48VDC @ 5A	109.95	99.95	89.95	80.95
196656	S-320-24	320	24VDC @ 12.5A	119.95	109.95	99.95	89.95

300-Watt Single Output

With PFC – Power Factor Correction

137390

- 98% @ 115VAC; 95% @ 230VAC
- Input voltage: 100 to 240VAC (with PFC - Power Factor Correction)
- Mating input/output connector: P/N 103587, pg 156, spade terminal
- Automatic fan controls internal temperature
- Over-temperature protected
- MTBF table, see right • Size: 9.0"L x 4.5"W x 2.0"H • Weight: 2.6 lbs.

Part No.	Product No.	Watts	Output	1	10	25
137390	SP-300-12	288	12VDC @ 24A	$139.95	$125.95	$113.95
137402	SP-300-24	300	24VDC @ 12.5A	139.95	125.95	113.95
161980	SP-300-48	300	48VDC @ 6.25A	139.95	125.95	113.95

480-Watt Single Output

With PFC – Power Factor Correction

147053

- Input voltage: 100-240VAC @ 50/60Hz
- Built-in remote control
- Mating input/output connector: P/N 103587, pg 156
- PFC: 98% @ 115VAC; 95% @ 230VAC
- Short circuit, overload, over voltage and over temperature protection
- Cooling fan (temperature sensing) • Remote voltage sensing
- Size: 7.3"L x 4.8"W x 3.8"H • Weight: 4.2 lbs.

Part No.	Product No.	Watts	Output	1	10	25
190692	SP500-12	480	12VDC @ 40A	$209.95	$189.95	$169.95
147053	SP500-24	480	24VDC @ 20A	219.95	199.95	179.95
190705	SP500-27	480	27VDC @18A	219.95	199.95	179.95
161795	SP500-48	480	48VDC @ 10A	219.95	199.95	179.95

500-Watt Single Output

With Parallel Operation

With PFC – Power Factor Correction

190713

- Input voltage: 90-264VAC @ 47-63Hz; 127-370VDC
- Ripple and noise: 200mV – 240mV peak to peak
- Parallel/series operation can reach 3KW
- Current sharing/remote control/remote sense
- Mating input/output connector: PN103587, pg 156
- Line regulation: ±2%
- Size: 11.0"L x 5.0"W x 2.5"H • Weight: 5.5 lbs.

Part No.	Product No.	Watts	Output	1	10	25
190713	PSP500-12	480	12VDC @ 40A	$249.95	$224.95	$204.95
190721	PSP500-24	480	24VDC @ 20A	249.95	224.95	204.95
190730	PSP500-27	480	27VDC @ 18A	249.95	224.95	204.95
190748	PSP500-48	480	48VDC @ 10A	249.95	224.95	204.95

MTBF (hours) vs Operating Temperature/Load

Product Numbers: S-25, S-40, S-60, S-100F, S-150, D-60, D-120, T-60, Q-120

Operating Temp.	50˚C	40˚C	30˚C
Load 100%	10,000	30,000	90,000
Load 60%	30,000	80,000	200,000

Product Numbers: S-240, SP-300

Operating Temp.	50˚C	40˚C	30˚C
Load 100%	45,000	90,000	180,000
Load 60%	62,500	125,000	250,000

VOLGEN 30-Watt

- Output voltage: +12VDC @ 2.5A
- Adjustable outputs ±10%

Part No.	Product No.	1	10	50
167687	MRE122R5U	$14.95	$13.49	$11.95

COMPAQ 73-Watt

SALE

- Output voltage:
  +5VDC @ 10A
  +12VDC @ 1.5A
  -5VDC @ 0.3A
  -12VDC @ 0.3A

Part No.	Product No.	1	10	50
101813	141688-003	$17.95	$15.95	$13.95

GlobTek 150-Watt

NEW

- Output voltage: +24VDC @ 6.5A
- Input voltage: 115/230 @ 50/60Hz
- Similar to P/N 123449, pg 67

Part No.	Product No.	1	10	25
199515	RT-3S150-24	$54.95	$49.95	$44.50

* see photo above

Check Out Our Complete Line of Enclosed Power Supplies

Part Number	Manufacturer	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector/Cord	Output Connector	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50
167687	Volgen	MRE122R5U*	30	+12/2.5	100/230 @ 50/60	screw terminal (P/N 103587, pg 156)	screw terminal (P/N 103587, pg 156)	UL/CSA/TUV/CE	6.2 x 3.9 x 1.5	1.1	$14.95	$13.49	$11.95
190140	Computer Products	NFN40-7643E	40	+5/5, +12/1 -12/0.5	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	6-pin molex F cable	UL/CSA	6.0 x 4.0 x 1.7	1.7	12.95	11.49	—
190158	Cherokee	SP236	43	+5/5, +12/1 -12/0.5	100-240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	.156 M header (P/N 104731, pg 52)	UL/CSA	7.0 x 3.5 x 2.5	1.6	12.95	11.49	—
146843	Astec	AC9232-01*	50	+5/6, +12/2.5 -5/0.5, -12/0.5	115/230 @ 50/60	.156" M header (P/N 104432, pg 52)	.156" M header (P/N 104432/ 104766, pg 52)	UL/CSA/VDE	8.0 x 4.5 x 2.5	2.0	22.95	20.95	18.95
101813	Compaq	141688-003*	73	+5/10, +12/1.5, -5/0.3, -12/0.3	100/240 @ 50/60	3 prong receptacle (P/N 38050, pg 57)	.156" M header 103392, pg 51; 78300 (2), 42075 (1), pg 55	UL/CSA/TUV	6.6 x 3.8 x 2.9	2.1	17.95	15.95	13.95
199515	GlobTek	RT-3S150-24	150	+24/6.5	115/230 @ 50/60	screw terminal (P/N 103587, pg 156)	screw terminal (P/N 103587, pg 156)	UL/CE	7.9 x 4.3 x 1.9	1.8	54.95	49.95	44.50
167530	Power One	HPM5A42K	2000	+5/150, +5/250	180/264 @ 47/440	screw terminal (P/N 103587, pg 156)	screw terminal (P/N 103587, pg 156)	UL/CSA/TUV	11.0 x 8.0 x 5.0	2.1	129.95	—	—

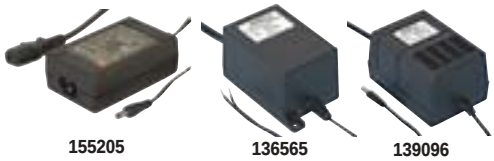
Manufacturer and Product Number may vary.

AC/DC Table-Top Power Supplies

Power cords – see below

Stripped DIN Male Female

- Regulated and unregulated outputs (see Output Plug)
- Input voltage: 100-240VAC @ 50/60Hz



155205 136565 139096

Polarity 1 (center negative) Polarity 2 (center positive)

Part Number	Product Number	Output Volts (VDC)	Output Current (A)	Output Watts (W)	Output Plug ID x OD/Plug Type/Polarity	Power Indicator	Color	Size (L" x W" x H")	Cord* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	Pricing 10	Pricing 50	Pricing 100
196218	GT210891005T3	5	2.0	10	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.4 x 1.9 x 1.3	6'/ 2	0.4	UL/CSA/TUV/CE	$12.95	$11.49	$10.49	$9.49
161568	MA15-050R	5	2.5	15	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	19.95	17.95	15.95	13.95
172777	AD740U	5	4.0	20	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.1 x 2.6 x 1.6	4'/ 2	1.4	UL/CUL/TUV/CE	19.95	17.95	15.95	13.95
155205	KA52A	5	4.0	20	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.1 x 2.6 x 1.6	6'/6'	1.2	UL/CSA/TUV	29.95	26.95	24.95	22.95
169121	AD740U1050	5	4.0	20	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.1 x 2.6 x 1.6	4'/ 2	1.4	UL/CUL/TUV/CE	27.95	24.95	22.65	20.35
190051	APS48EA114	7	1.5	10	2.5mm x 5.5mm female **2**	No	Black	3.4 x 2.3 x 1.9	6'/6'	1.9	UL/CUL	9.95	8.95	7.95	6.95
189245	APA45107-5PL09	7.5	6.0	45	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	3.9 x 2.5 x 1.2	6'/ 3	0.7	UL/CUL/TUV/CE	19.95	17.95	15.95	13.95
170341	UP02511091	9	0.3	3	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.3 x 2.7 x 1.5	6'/ 2	0.6	UL/CSA/TUV	12.95	11.69	10.49	9.45
195805	DCR920F12	9	2.0	18	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	24.95	22.49	19.95	17.95
195768	DCR920F52	9	2.0	18	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	24.95	22.49	19.95	17.95
136565	DDC1210P†	12	1.0	12	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.2	—	9.95	8.95	7.95	6.95
161576	MA15-120R	12	1.25	15	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	22.95	19.95	17.95	15.95
140880	DC1215ST†	12	1.5	18	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'/6'	1.5	UL	10.95	9.95	8.95	7.95
183054	SPU24-3	12	1.5	18	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.2 x 2.6 x 1.2	6'/ 2	0.5	UL/CUL/TUV/CE	22.95	19.95	16.95	14.95
157956	PS571812D†	12	1.5	18	2.5mm x 5.5mm female **2**	No	Black	3.4 x 2.7 x 2.2	6'/6'	2.0	UL	10.95	9.95	8.95	7.95
143714	DC1220F1†	12	2.0	24	2.1mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	12.95	11.49	10.49	9.49
143722	DC1220F5†	12	2.0	24	2.5mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	12.95	11.49	10.49	9.49
143731	DC1220M3†	12	2.0	24	3.5mm male **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	1.9	—	12.95	11.49	10.49	9.49
192823	PSA-122	12	2.5	30	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.8 x 2.9 x 1.7	3'2"/ 2	0.9	UL/CSA/TUV/CE	19.95	17.95	15.95	13.95
191901	CUP36-12	12	2.5	30	2.5mm x 5.5mm rt angle fem **2** **(reg)**	No	Black	4.4 x 2.0 x 0.8	4'/ 3	0.7	UL/CSA/TUV/CE	19.95	17.95	15.95	14.59
191142	DC1225F1	12	2.5	30	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.7 x 2.2 x 1.2	6'/ 3	2.0	UL/CSA/TUV	24.95	22.49	19.95	17.95
196200	UP0351A-12P	12	3.0	36	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Dk. gray	5.5 x 2.7 x 1.5	6'/ 2	1.0	UL/CSA/TUV/CE	32.95	29.65	26.69	23.99
155213	P40A-3P2JU	12	3.3	40	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.5 x 2.3 x 1.5	6'/6'	0.7	UL/CUL/TUV	34.95	31.45	28.29	25.45
155230	SPU50-3	12	5.0	60	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.5	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95
189659	STLN4123B	14	0.83	11	2.1mm x 5.5mm female **2**	No	Beige	3.4 x 2.5 x 2.1	8'6"/6'	1.8	UL/CUL	12.95	11.49	10.49	9.49
174975	SPU24-4	15	1.6	22	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.1 x 2.5 x 1.2	6'/6'	0.6	UL/CSA/TUV/CE	29.95	26.95	24.95	22.95
189739	PSA-152	15	2.0	30	2.5mm x 5.5mm female **2**	No	Black	5.8 x 2.9 x 1.6	3'/ 2	1.6	UL/CSA/CE	19.95	17.95	15.95	13.95
173593	UPS30215P**	15	2.0	30	2.5mm x 5.5mm female **2** **(regulated)**	Switch	Black	6.8 x 4.3 x 2.2	6'/ 2	1.2	UL/CSA/TUV	24.95	22.49	20.19	17.99
190609	PSA171	17	1.75	30	2.1mm x 5.5 mm female **2** **(regulated)**	Yes	Black	5.8 x 2.9 x 1.7	3'4"	0.9	UL/CSA/TUV	19.95	17.95	15.95	13.95
191898	A81807DM+	18	0.7	12.6	2.1mm x 5.5mm female **1**	No	Black	4.2 x 3.1 x 2.5	6'/6'	2.6	—	14.95	13.45	11.99	10.89
196306	A51813D†	18	1.3	23	2.1mm x 5.5mm female **2**	No	Black	3.6 x 2.4 x 2.0	6'/6'	1.8	UL/CSA	14.95	13.49	11.95	10.95
174983	SPU41-5	18	2.2	40	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.6	6'/6'	1.1	UL/CUL/TUV/CE	39.95	35.95	32.95	29.95
169076	808050-00	20	2.5	50	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	6.7 x 3.3 x 2.3	6'/ 2	1.4	UL/CSA/TUV	22.95	19.95	17.95	15.95
174844	DCR2410F12†	24	1.0	24	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.6	—	14.95	13.49	11.95	10.95
174852	DCR2410F52†	24	1.0	24	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.7	—	14.95	13.49	11.95	10.95
139096	DC2412F1†	24	1.2	29	2.1mm x 5.5mm female **2**	No	Black	4.4 x 3.1 x 2.6	6'/6'	2.5	—	14.95	13.49	11.95	10.95
181884	P40A6P2J	24	1.66	40	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	0.7	UL/TUV/CE	29.95	26.95	24.95	22.95
161605	SPU50-6	24	2.5	60	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.6	1'9"/6'	1.3	UL/CSA/TUV	44.95	39.95	35.95	32.95
172216	HPC2108A	30	0.40	12	3.0mm x 6.5mm female **1** 220VAC input India/South Africa	No	Black	3.5 x 2.6 x 2.1	5'/3'	1.7	—	2.95	2.49	2.25	1.95
173665	DND-3005	30	0.5	15	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	8.3 x 2.5 x 2.2	5'9"/3'2"	1.4	UL/CUL	9.95	8.95	7.95	6.95
172064	SPU50-9	48	1.25	50	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.7	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95

† 120VAC input only * See accessory table-top power cord chart below when AC cord needed ** Has on/off switch

Accessory Power Input Cords for Table-Top Power Supplies

38050

(See page 56 for International Power Cords)

189587

Note: Required to operate above power supplies. The reference number for appropriate power cord is listed in the Cord (DC/AC) column above

Part Number	Reference Number	Description	Color	AWG	Cord Type	Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	Pricing 10	Pricing 100
38041	1	3-conductor detachable power supply cord	Beige	18/3	SVT	6'	0.4	UL/CSA	$3.49	$2.95	$2.49
38050	2	3-conductor detachable power supply cord	Black	18/3	SVT	6'	0.4	UL/CSA	3.75	3.25	2.75
189587	3	2-conductor detachable power cord for 189245/1919011/191142	Black	18/2	SPT	6'	0.3	UL/CSA	2.95	2.39	2.39

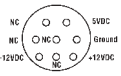
See pages 62-68 for more Mean Well Power Supplies – Mean Well is an ISO-9002 Certified Company

Part Number Color Code
New Sale Refurbished Closeout

Manufacturer and Product Number may vary.

MOTOROLA 5.6-Watt Linear Wall Regulated DC Power Supply

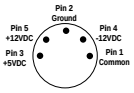
- **Output voltage:**
  +5VDC @ 500mA
  +12VDC @ 130mA
  -12VDC @ 130mA
- Input voltage: 120VAC @ 60Hz
- Input conn.: 3-prong AC wall plug



Part No.	Product No.	1	10	50	100
154624	5712-305-4C3E	**$7.95**	**$6.95**	**$6.25**	**$4.95**

MEAN WELL 21-Watt Table-Top DC Power Supply

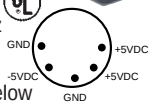
- **Output voltage:**
  +5VDC @ 2.5A
  +12VDC @ 0.8A
  -12VDC @ 0.3A
- Input voltage: 100/250VAC @ 50-60Hz
- Input: 6' power cord (included)
- Output connector: male 5-pin DIN connector with 5' long cable
- Mating output connector: P/N 15843, pg 50



Part No.	Product No.	1	10	25	100
190959	P25A13D	**$39.95**	**$35.95**	**$32.49**	**$28.95**

SKYNET 8-Watt Table-Top DC Power Supply

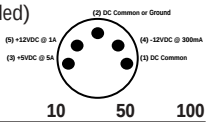
- **Output voltage:**
  +5VDC @ 1.5A, -5VDC @ 0.1A
- Input voltage: 115/230 @ 50/60Hz
- Input connector:
  3-prong input power receptacle
- Power supply cord: P/N 38050, below
- Mating output connector: P/N 15843, pg 50



Part No.	Product No.	1	10	50	100
153752	LVT-T022	**$12.95**	**$11.49**	**$9.95**	**$8.95**

MEAN WELL 40.6-Watt Table-Top Regulated DC Power Supply

- **Output voltage:**
  +5VDC @ 5A
  +12VDC @ 1A
  -12VDC @ 0.3A
- Input voltage: 100/240VAC @ 47-63Hz
- Input: 6' power cord (included)
- Mating output connector: 5-pin DIN female connector P/N 15843, pg 50

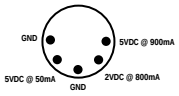


Part No.	Product No.	1	10	50	100
155053	SPU41-13D1	**$49.95**	**$44.95**	**$39.95**	**$35.95**

ARTESYN 14-Watt Table-Top Switching Power Supply

NEW

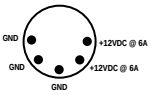
- **Output voltage:**
  5VDC @ 900mA
  12VDC @ 800mA
  -5VDC @ 50mA
- Input voltage: 100 – 240VAC@50/60Hz
- Input connector: 2-prong input power receptacle



Part No.	Product No.	1	10	50	100
196146	JE9100	**$14.95**	**$13.49**	**$11.95**	**$10.95**

ELPAC 72-Watt Table-Top Switching Power Supply

- **Output voltage:**
  +12VDC @ 6A
- Input voltage:
  95-250VDC @ 47-63Hz
- Input: 6' power cord (included)
- Mating output connector:
  5-pin DIN female connector,
  P/N 180873, pg 156



Part No.	Product No.	1	10	50	100
182959	W7212	**$39.95**	**$35.95**	**$32.95**	**$29.95**

SALE

Check Out Our Complete Line of Wall-Mount and Table-Top Power Supplies

Part Number	Manufacturer	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector/Cord**	Output Connector/Cord	Certification	Size L" x W" x H"	Wt. (lbs.)	Type/Color	Mode†	Pricing 1	10	50	100
163969	Gatron	AH633N	3.75	+5/0.75	120 @ 60	3-prong/6' cord	4-pin mini DIN M/5'9"	UL/CSA	4.1 x 2.5 x 2.0	1.5	Table/Black	S	**$2.95**	**$2.49**	**$2.25**	**$1.95**
116089	Atari	C070042	5.0	+5/1	115 @ 60	2-prong/6' cord	7-pin DIN M/6'	UL	3.4 x 2.7 x 2.3	1.6	Table/Black	L	**6.95**	**6.25**	**5.59**	**4.49**
154624	Motorola*	5712-305-4C3E	5.6	+5/0.5, +12/0.13, -12/0.13	120 @ 60	3-prong wall plug	8-pin mini DIN M/6'	UL/CSA	2.9 x 2.6 x 1.9	1.2	Wall/Black	L	**7.95**	**6.95**	**6.25**	**4.95**
147467	Atari	PS32	6.1	+5/0.72, +12/0.21	117 @ 60	2-prong/6' cord	5-pin DIN F/6'	UL/CSA	4.8 x 3.3 x 3.2	2.6	Table/Black	L	**2.49**	**2.25**	**1.99**	**1.79**
160899	Lexmark	7202C3	7.5	+5/1.5	120 @ 60	2-prong/6'2" cord	3-pin Molex/8'	UL/CSA	5.5 x 2.5 x 1.2	2.1	Table/Black	L	**4.25**	**3.75**	**3.39**	**—**
153752	Skynet *	LVT-T022	8.0	+5/1.5, -5/0.1	115/230 @ 50/60	3-prong recep. / 2	5-pin mini DIN M/6'	UL/CSA/TUV	5.5 x 2.9 x 1.5	1.1	Table/Black	S	**12.95**	**11.49**	**9.95**	**8.95**
103173	Jameco	JE9100	9.0	+5/0.6, +12/0.25, -12/0.25	120 @ 50/60	2-prong/6' cord	5-pin DIN M/6'	UL/CSA	4.8 x 3.1 x 2.5	2.3	Table/Black	L	**19.95**	**17.95**	**15.95**	**14.95**
171088	Potrans	WP481218D	12.0	+9/1, -9/0.3	120 @ 60	2-prong wall plug	3-pin mini DIN M/10'	UL/CSA	3.2 x 2.2 x 1.9	1.2	Wall/Black	S	**4.95**	**4.49**	**3.95**	**3.49**
155651	Globtek	TR2V100MD8	12.2	+5/1, +12/0.3, -12/0.3	120 @ 60	3-prong/6' cord	8-pin mini DIN M/6'	UL	4.5 x 3.0 x 2.5	2.6	Table/Black	L	**17.95**	**15.95**	**14.49**	**12.95**
196146	Artesyn *	SSL20-7660	14.0	+5/0.9, +12/0.8 -5/0.5	100-240 @ 50/60	2-prong recep. / 3	5-pin DIN M/6'	UL/CSA/VDE	4.2 x 2.3 x 1.0	1.0	Table/Black	S	**14.95**	**13.49**	**11.95**	**10.95**
190596	Phihong	UP1412010	14.0	+5/1, +12/0.75	100-250 @ 50/60	3-prong recep./ 2	5-pin mini DIN M/3'4"	UL/CSA/TUV/CE	4.1 x 2.5 x 1.3	0.9	Table/Black	S	**19.95**	**17.95**	**15.95**	**—**
107326	Keltron	MPC2562	15.2	+5/2, +2.6/0.2	115 @ 60	3-prong/6' cord	3-pin Molex F/3'5"	UL	7.0 x 4.9 x 2.5	3.1	Table/Black	L	**9.95**	**7.95**	**6.75**	**4.95**
159353	Mean Well	KA60A	17.0	+5/1, +12/0.5 -12/0.5	100-240 @ 50/60	3-prong/6' cord	5-pin DIN M/5'	UL/CSA/TUV	4.1 x 2.6 x 1.5	1.0	Table/Black	S	**39.95**	**35.95**	**32.49**	**28.95**
189211	ACI World	57-12-1500D	18.0	+12/1.5	120 @ 60	2-prong wall plug	8-pin mini DIN M/3'4"	UL/CUL	3.4 x 2.6 x 2.2	1.7	Wall/Black	U	**8.95**	**7.95**	**6.75**	**5.59**
189843	ACI World	EPA201D12	20.0	+12/1.66	100-240 @ 50/60	3-prong recep. / 2	8-pin mini DIN M/3'4"	UL/CSA/TUV/CE	4.3 x 2.3 x 1.3	1.0	Table/Black	S	**12.95**	**11.49**	**9.95**	**8.95**
171627	Ault	SC222TA	21.1	+5/1.1, +12/1.3	100-250 @ 50/60	3-prong recep. / 2	4-pin mini DIN M/6'	UL/CSA/TUV/CE	4.1 x 2.5 x 1.5	0.9	Table/Black	S	**24.95**	**22.49**	**19.95**	**17.95**
190959	Mean Well*	P25A13D	22.7	+5/2.5, +12/0.8 -12/0.3	100-240 @ 47-63	3-prong/6' cord	5-pin DIN M/6'	CUL/TUV/CE	4.1 x 2.6 x 1.4	1.1	Table/Black	S	**39.95**	**35.95**	**32.49**	**28.95**
196138	DVE	DSA-0283A	23.0	+5/1, +12/1.49 -5/.43	100-240 @ 47/63	2-prong/ 3	5-pin DIN M/6'	UL/CSA/TUV	4.9 x 2.7 x 1.5	0.8	Table/Black	S	**24.95**	**22.49**	**19.95**	**17.95**
196269	Everglow	PSU25A13	25.0	+5/2.5, +12/1	100-240 @ 47/63	3-prong/6' cord	4-pin mini DIN M/4'	UL/CUL/TUV/CE	4.2 x 2.6 x 1.4	1.2	Table/Black	S	**29.95**	**26.95**	**23.95**	**21.95**
190650	Ault	SW300	25.0	+5/4, +12/1	100-250 @ 50/60	3-prong recep. / 2	5-pin DIN M/6'	UL/CSA/TUV	5.9 x 3.4 x 2.1	1.5	Table/Black	S	**22.95**	**20.49**	**18.49**	**16.95**
173825	Ault	SW109	25.0	+9/2.78	100-250 @ 50/60	3 prong recep./ 2	3-pin Molex F/5'8"	UL/CSA/CE	5.0 x 3.0 x 1.5	1.3	Table/Black	S	**10.95**	**9.95**	**8.95**	**7.95**
189561	Phihong	PSM-3012G	26.0	+5/4, +12/0.5	100-240 @ 50/60	3-prong recep. / 1	5-pin mini DIN M/6'	UL/CSA	5.8 x 2.9 x 1.6	1.3	Table/Beige	S	**24.95**	**22.49**	**19.95**	**17.95**
190570	Phihong	PSM3021	28.0	+5/2, +12/1.5	100-240 @ 50/60	3-prong recep. / 2	5-pin DIN M/5'	UL/CSA/VDE	5.8 x 3.0 x 6.1	1.1	Table/Beige	S	**27.95**	**24.95**	**—**	**—**
155053	Mean Well*	SPU41-13D1	40.6	+5/5, +12/1, -12/0.3	100-240 @ 47/63	3-prong/6' cord	5-pin mini DIN F/4'	UL/CSA/TUV	5.5 x 3.0 x 1.6	1.3	Table/Black	S	**49.95**	**44.95**	**39.95**	**35.95**
182959	Elpac*	W7212	72.0	+12/6	95-250 @ 47/63	3-prong/6' cord	5-pin DIN F/6'	UL/CSA/CE	6.2 x 3.8 x 2.6	2.5	Table/Black	S	**39.95**	**35.95**	**32.95**	**29.95**

* See photo above ** See Accessory Power Input Cords Chart below when AC cord is needed † S = switching; L = linear; U = unregulated

** Accessory Power Input Cords

189587

Note: Required to operate above power supplies. The reference number for appropriate power cord is listed in the Input Connector/Cord column above

Part No.	Ref. Number	Description	Color	AWG	Certification	Cord Length	Wt. (lbs.)	Cord Type	1	10	100	250
38041	1	3-conductor detachable power supply cord	Beige	18/3	UL/CSA	6'	0.4	SVT	**$3.49**	**$2.95**	**$2.49**	**$1.95**
38050	2	3-conductor detachable power supply cord	Black	18/3	UL/CSA	6'	0.4	SVT	**3.75**	**3.25**	**2.75**	**2.25**
189587	3	2-conductor detachable power supply cord for 196138/196146	Black	18/2	UL/CSA	6'	0.3	SPT	**2.95**	**2.39**	**2.05**	**1.59**

We specialize in Wall Transformers – Manufacturer and Product Number may vary – Call for additional OEM PRICING.

102234

100108

Female Male DIN

AC to AC Wall Transformers

- Input: 120VAC @ 60Hz • Current rating up to 2.5A
- Meets safety agency requirements
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 85 for wall transformer enclosures

We will change any power plug (see page 60) on any AC wall transformer listed (100 piece minimum)

10081

10102

Part Number	Product Number	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type	Dimensions (in.) (±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
101127	DFX10096B	7 VAC	1500 mA	2.5 mm x 5.5 mm female	1.88	2.20	1.95	Black	7' 6"	0.8	UL/CSA	$4.95	$4.49	$3.95	$3.25
163310	43-3003	9 VAC	50 mA	2.1 mm x 5.5 mm female	2.20	1.75	1.45	Black	6'	0.3	UL/CUL	1.49	1.15	.85	.59
184751	M/N40	9 VAC	450 mA	2.1 mm x 5.5 mm female	2.75	1.97	1.68	Black	6'	0.8	UL/CSA	3.95	2.95	2.49	1.95
100061	AC905F1	9 VAC	500 mA	2.1 mm x 5.5 mm female	2.35	1.95	1.56	Black	6'	0.6	UL/CUL	4.95	4.49	3.95	3.49
119204	A41090800	9 VAC	800 mA	2.1 mm x 5.5 mm female	2.55	1.91	1.74	Black	6'	0.6	UL	3.49	2.95	2.49	1.95
120141	AC908M3	9 VAC	800 mA	3.5 mm male	2.55	1.91	1.74	Black	6'	0.5	UL	4.95	4.49	3.95	3.25
102234	AC910F1	9 VAC	1000 mA	2.1 mm x 5.5 mm female	3.20	2.24	1.93	Black	6'	0.6	UL/CSA	5.95	5.35	4.79	4.29
157041	41A9-1000	9 VAC	1000 mA	2.5 mm x 5.5 mm female	2.06	2.12	1.63	Black	6'	0.6	UL/CSA	5.95	5.35	4.79	4.29
112336	AC915F5	9 VAC	1500 mA	2.5 mm x 5.5 mm female	2.50	2.20	1.96	Black	6'	0.9	UL	6.95	6.25	5.59	4.95
101258	41A12-500	12 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.25
189202	A41A12-830	12 VAC	830 mA	2.1 mm x 5.5 mm female	2.03	2.09	1.62	Black	6'	0.7	UL/CSA	5.49	4.95	4.49	3.95
10081	AC1210F1	12 VAC	1000 mA	2.1 mm x 5.5 mm female	2.56	2.39	1.99	Black	6'	0.7	UL/CSA	5.95	5.35	4.79	4.29
100167	AC1210F5	12 VAC	1000 mA	2.5 mm x 5.5 mm female	3.20	2.41	2.00	Black	6'	0.7	UL/CSA	5.95	5.35	4.79	4.29
10428	AC1210M3	12 VAC	1000 mA	3.5 mm male	2.60	2.40	1.97	Black	6'	0.6	UL/CUL	5.49	4.95	4.49	3.95
167151	HET57116	12 VAC	1500 mA	2.1 mm x 5.5 mm female	3.36	2.68	2.15	Black	6'	1.5	—	6.95	6.25	5.59	4.95
153761	AC1216M3	12 VAC	1600 mA	3.5 mm male	2.50	2.21	1.92	Black	6'	0.9	UL	6.95	6.25	5.59	4.95
171408	AC1405F1	14 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
171854	DV1485AC	14 VAC	850 mA	2.5 mm x 5.5 mm right angle female	3.00	1.95	1.69	Black	6'	0.7	UL/CUL	3.95	2.95	2.49	1.95
100108	AC1610F1	16 VAC	1000 mA	2.1 mm x 5.5 mm female	2.50	2.21	1.93	Black	6'	0.9	UL/CSA	6.95	5.95	4.95	4.49
190490	WP571616	16 VAC	1000 mA	2.1 mm x 5.5 mm female	3.30	2.70	2.20	Black	8'	1.0	UL/CSA	5.95	5.35	4.79	4.29
163053	035-0165	16 VAC	1100 mA	2.5 mm x 5.5 mm female	3.20	2.30	1.80	Black	6'	1.1	UL/CSA	6.95	5.95	4.95	3.95
149551	15784903BF	16 VAC	2500 mA	5-pin DIN male connector (3-prong)	3.30	2.70	2.20	Black	6'	1.8	UL	5.95	5.35	4.79	3.95
121216	AC1810F1	18 VAC	1000 mA	2.1 mm x 5.5 mm female	3.11	2.36	1.85	Black	6'	1.1	UL/CUL	5.95	5.35	4.79	4.25
158123	AC1810M3	18 VAC	1000 mA	3.5 mm male	3.05	2.26	1.89	Black	6'	1.0	UL/CSA	5.95	5.35	4.85	4.35
185439	T5182200-A020G	18 VAC	1850 mA	2.1 mm x 5.5 mm right angle female	3.34	2.69	2.19	Black	6'	1.7	UL/CSA	6.95	5.95	4.95	3.95
87581	AC2405F1	24 VAC	500 mA	2.1 mm x 5.5 mm female	2.50	2.24	1.92	Black	6'	0.9	UL/CSA	6.95	6.25	5.59	4.95
140599	AC2410F1	24 VAC	1000 mA	2.1 mm x 5.5 mm female	3.00	2.20	1.90	Black	6'	1.2	UL/CSA	7.95	6.95	6.25	5.59
10102	AC2410M3	24 VAC	1000 mA	3.5 mm male	3.00	2.20	1.90	Black	6'	1.2	UL/CSA	7.95	6.95	6.25	5.59
176356	WP573024	24 VAC	1250 mA	2.1 mm x 5.5 mm female	3.36	2.67	2.20	Black	5'8"	1.6	UL/CSA	7.95	6.95	5.95	4.95

DC Wall Transformers

We specialize in Wall Transformers – Manufacturer and Product Number may vary – Call for additional OEM PRICING.

112070

164101

Stripped Female Male

AC to DC Wall Transformers

Unregulated Unless Specified Under Output Plug

- Input: 120VAC @ 60Hz • Current rating up to 2.5A
- Meets safety agency requirements
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 85 for wall transformer enclosures

We will change any power plug (page 60) on any DC wall transformer listed (100 piece minimum)

155601

167142

Polarity 1 (center negative) Polarity 2 (center positive)

Part Number	Product Number	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.) (±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
112070	DC502F5	5 VDC	225 mA	2.5 mm x 5.5 mm female **2**	1.90	2.20	1.95	Black	7'	0.3	UL/CSA	$4.95	$4.49	$3.95	$3.49
164101	DCR505F12	5 VDC	500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.76	2.02	1.59	Black	6'	0.6	—	6.95	6.25	5.59	4.95
155601	DC510F1	5 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	1.96	1.71	Black	6'	0.7	UL/CSA	5.95	5.35	4.79	4.29
171301	JOD48U08	5 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.13	2.93	2.00	Black	6'	1.0	UL/CUL	6.95	5.95	5.25	4.49
196411	DDU050100	5 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.28	2.22	1.91	Ivory	6'	1.0	UL/CUL	8.95	7.95	6.95	6.25
168604	DCR510F5	5 VDC	1000 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	3.30	2.20	1.92	Black	6'	1.2	UL/CSA	7.95	6.95	6.25	5.59
161664	EZAC1	5 VDC	1500 mA	2.5 mm x 5.5 mm right angle female **2**	2.67	1.73	1.21	Black	6'	0.4	UL/CSA	4.95	4.49	3.95	3.49
189190	EPA101MU-058	5 VDC	2000 mA	2.5 mm x 5.5 mm female **1** **(regulated)**	3.16	2.37	1.34	Black	6'	0.4	UL/CUL	9.95	8.95	7.65	6.25
196314	SYS10891005LW2	5 VDC	2000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.91	1.93	1.59	Black	6'	0.4	UL/CSA/CE	9.95	8.95	7.65	6.25
196470	WR92A2400CCP	5 VDC	2400 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.20	2.20	1.90	Black	6'	0.5	UL/CSA	9.95	8.95	7.95	6.95
161541	WA15050R	5 VDC	2500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.62	Black	6'	0.4	UL/CSA	14.95	13.49	11.95	10.95
190511	SADB-0885	6 VDC	200 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.56	1.81	1.51	Black	6'	0.4	UL/CUL	3.95	3.55	3.19	2.79

DC Wall Transformers continued on pages 72 & 73

Part Number Color Code
New Sale Refurbished Closeout

We specialize in Wall Transformers – Manufacturer and Product Number may vary – Call for additional OEM PRICING.

100845

100853

AC to DC Wall Transformers

Unregulated unless specified under output plug

- Input: 120VAC @ 60Hz
- Current rating up to 2.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 85 for wall transformer enclosures

We will change any power plug (pg 60) on any DC wall transformer listed (100 piece minimum)

100175

127976

Polarity 1 (center negative) Polarity 2 (center positive)

Part Number	Product Number	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.)(±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
119255	DC605F11	6 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.31	1.75	1.75	Black	6'	0.6	UL/CUL	$4.95	$4.49	$3.95	$3.49
101266	DC605F12	6 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.44	1.89	1.61	Black	6'	0.4	UL/CSA	4.95	4.49	3.95	3.49
15544	DC605M3	6 VDC	500 mA	3.5 mm male **2**	2.44	1.89	1.61	Black	6'	0.4	UL/CSA	4.95	4.49	3.95	3.25
147707	DC608F1	6 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.33	1.98	1.62	Black	6'	0.6	UL/CSA	5.95	5.35	4.79	4.29
127511	DC810F1	8 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	3.10	2.50	2.10	Black	6'	1.3	UL	6.95	6.25	5.59	4.95
134025	DC902F11	9 VDC	200 mA	2.1 mm x 5.5 mm female **1**	2.13	1.71	1.55	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	3.09
100845	DC902F12	9 VDC	200 mA	2.1 mm x 5.5 mm female **2**	2.06	1.70	1.47	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	3.09
170958	HKA0920EC	9 VDC	200 mA	2.1 mm x 5.5 mm female **2** **(230VAC input; European Plug)**	2.57	1.70	1.56	Black	6'	0.5	TUV/CE	1.49	1.25	.99	.75
100837	DIA3590	9 VDC	200 mA	3.5 mm male **2**	2.57	1.75	1.55	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	2.95
190529	AD9123	9 VDC	250 mA	2.5 mm x 5.5 mm rt. angle **2** **(regulated)**	2.47	2.02	1.60	Black	12'	0.5	UL/CSA	4.95	4.49	3.99	3.59
191767	CTPS350903002C0	9 VDC	300 mA	1.3 mm x 5.5 mm right angle female **2**	2.29	1.77	1.47	Black	6'	0.4	UL/CSA	3.95	3.49	2.95	2.65
133891	DC903F1	9 VDC	300 mA	2.1 mm x 5.5 mm female **2**	2.00	1.50	1.50	Black	6'	0.4	UL/CSA	4.49	3.95	3.55	3.25
189237	35-9-300C	9 VDC	300 mA	2.5 mm x 5.5 mm female **2**	2.19	1.73	1.42	Black	6'	0.4	UL/CSA	4.49	3.95	3.55	3.25
169519	KX-TCA1	9 VDC	350 mA	2.1 mm x 5.5 mm right angle female **1**	2.72	1.70	1.55	Gray	6'	0.4	UL/CSA	4.49	3.95	3.55	3.25
140636	DC904F5	9 VDC	400 mA	2.5 mm x 5.5 mm female **2**	2.58	2.00	2.00	Black	6'	0.6	UL/CSA	4.49	3.95	3.55	3.25
163627	DC905F11	9 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.50	1.90	1.74	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
170270	PQLV1	9 VDC	500 mA	2.1 mm x 5.5 mm right angle female **1**	2.68	1.90	1.75	Gray	6'	0.6	UL/CSA	4.95	4.49	3.95	3.25
100853	DC905F12	9 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.50	1.90	1.74	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
147731	DC905F1BE	9 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.56	1.95	1.74	Beige	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
180540	FZ1729A	9 VDC	500 mA	2.5 mm x 5.5 mm right angle female **2**	2.41	1.17	1.57	Black	6'	0.4	UL/CSA	4.95	4.49	3.95	3.49
15561	DC905M3	9 VDC	500 mA	3.5 mm male **2**	2.50	1.95	1.56	Black	6'	0.5	UL/CSA	4.95	4.49	3.95	3.49
172654	B9-4103-13	9 VDC	600 mA	2.5 mm x 5.5 mm female **2** **(230VAC; Australian Plug)**	2.88	2.16	1.53	Black	6'	0.8	—	2.49	2.25	1.99	1.79
100175	DC906F5	9 VDC	600 mA	2.5 mm x 5.5 mm female **2**	2.50	1.90	1.75	Black	6'	0.6	UL/CSA	5.49	4.95	4.49	3.95
164929	48-9-900D	9 VDC	900 mA	2.1 mm x 5.5 mm female **1**	2.72	2.30	1.83	Black	6'	0.9	UL/CUL	4.95	4.49	3.99	3.59
100888	48-09-1000D	9 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	5.95	5.35	4.79	3.95
127503	DC910F5	9 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	2.59	2.43	2.00	Black	6'	0.9	UL/CSA	5.95	5.35	4.79	4.29
15587	PAG1200	9 VDC	1000 mA	3.5 mm male **2**	2.59	2.43	2.00	Black	6'	0.9	UL/CSA	5.95	5.35	4.79	4.29
130526	500273	9 VDC	1200 mA	2.1 mm x 5.5 mm female **1**	2.40	2.00	1.80	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
143693	DC915F1	9 VDC	1500 mA	2.1 mm x 5.5 mm female **2**	3.25	2.50	2.25	Black	6'	1.3	UL/CSA	9.95	8.95	7.95	6.95
161550	WA15090R	9 VDC	1670 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.62	Black	6'	0.4	UL/CUL	13.95	12.49	11.25	9.95
163993	DC1202F11R	12 VDC	200 mA	2.1 mm x 5.5 mm right angle female **1**	2.38	1.70	1.63	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	3.09
100095	DC1202F1	12 VDC	200 mA	2.1 mm x 5.5 mm female **2**	2.14	1.82	1.49	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	3.09
158043	DC1202F12R	12 VDC	200 mA	2.1 mm x 5.5 mm right angle female **2**	2.19	1.65	1.50	Black	6'	0.4	UL/CSA	3.95	3.55	3.19	2.85
149340	351202002	12 VDC	200 mA	2.5 mm x 5.5 mm female **2**	2.52	1.73	1.50	Black	6'	0.4	UL/CSA	3.95	3.55	3.19	2.85
129322	DV1220DC	12 VDC	200 mA	2.5 mm x 5.5 mm right angle female **2**	2.20	1.70	1.50	Gray	6'	0.4	UL/CSA	2.95	2.49	2.25	1.95
185658	DV1220DCB	12 VDC	200 mA	2.5 mm x 5.5 mm right angle female **2**	2.15	1.68	1.49	Black	6'	0.4	UL/CSA	3.25	2.95	2.75	2.49
164283	HD1225	12 VDC	250 mA	Strip & tin w/ panel mount strain relief	2.18	1.69	1.49	Gray	6'	0.4	UL/CUL	2.49	1.95	1.75	1.49
163491	AD1230	12 VDC	300 mA	Cut, stripped and tinned	2.19	2.16	1.59	Black	6'	0.5	UL/CSA	3.49	2.95	2.79	2.49
127976	DC1203F12	12 VDC	300 mA	2.1 mm x 5.5 mm female **2**	2.60	1.80	1.60	Black	6'	0.7	UL/CSA	4.49	3.95	3.55	3.25
190043	41-2-15	12 VDC	300 mA	2.5 mm 5.5 mm female **2**	2.90	2.00	1.55	Black	6'	0.5	UL/CSA	3.95	3.55	3.19	2.85
147926	AD212	12 VDC	400 mA	2.1 mm x 5.5 mm female **2**	2.59	1.96	1.67	Black	6'	0.5	UL/CSA	3.95	3.55	3.19	2.89
190502	DV1140DC	12 VDC	400 mA	2.1 mm x 5.5 mm right angle female **2**	2.60	2.12	1.85	Black	6'	0.5	UL/CUL	4.49	3.95	3.55	3.19
114825	DC1205ST	12 VDC	500 mA	Cut, stripped and tinned	2.52	2.02	1.65	Black	6'	0.6	CUL	4.25	3.79	3.25	2.95
15368	DC1205F11	12 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.50	1.90	1.57	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
195741	DC1205F11RG	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **1**	2.50	2.02	1.65	Lt. Gray	6'	0.6	UL, CUL	4.95	4.49	3.95	3.59
102496	DC1205F12	12 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.50	1.90	1.57	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
131300	SCP41	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **2**	2.60	1.90	1.74	Beige	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
162996	DCR1205F12	12 VDC	500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.17	2.20	1.91	Black	6'	0.9	—	7.95	6.95	6.25	5.59
102277	DC1205F5	12 VDC	500 mA	2.5 mm x 5.5 mm female **2**	2.50	2.08	1.68	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
17267	DC1205M3	12 VDC	500 mA	3.5 mm male **2**	2.50	1.90	1.57	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
117479	DC1208F1	12 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.99	2.28	1.95	Black	6'	0.9	UL, CSA	5.95	5.35	4.79	4.29
181711	48D12800B	12 VDC	800 mA	2.1 mm x 5.5 mm female **2** **(240 VAC input; UK Plug)**	3.18	2.17	2.18	Black	6'	1.1	CE, TUV	4.95	4.49	3.99	3.59
129331	48-12-800	12 VDC	800 mA	2.5 mm x 5.5 mm female **2**	2.99	2.28	1.95	Black	6'	0.9	UL, CSA	5.95	5.35	4.79	4.29
121232	AW10D1GA	12 VDC	800 mA	3.5 mm male **2**	2.57	2.40	1.95	Black	6'	0.9	UL, CSA	5.95	5.35	4.79	4.29
100870	DC1210F1	12 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	0.9	UL, CSA	6.95	6.25	5.59	4.95

DC Wall Transformers continued on page 71 & 73

We specialize in Wall Transformers – Manufacturer and Product Number may vary – Call for additional OEM PRICING.

105478

15392

Stripped Female Male

AC to DC Wall Transformers

Unregulated unless specified under output plug

- Input: 120VAC @ 60Hz
- Current rating up to 2.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 85 for wall transformer enclosures

We will change any power plug (page 60) on any DC wall transformer listed (100 piece minimum)

123932

123158

Polarity 1 (center negative) Polarity 2 (center positive)

Part Number	Product Number	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.)(±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
170245	DCR1210F12	12 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.20	2.26	1.97	Black	6'	1.2	—	$9.95	$8.95	$7.95	$6.95
105478	DC1210F5	12 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
189579	BCU12100	12 VDC	1000 mA	2.5 mm x 5.5 mm right angle female **2**	3.20	2.19	1.93	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
15392	DC1210M3	12 VDC	1000 mA	3.5 mm male **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
196445	YS1015U12	12 VDC	1250 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.82	Black	5'	0.4	UL/CSA	11.95	10.95	9.95	8.95
161533	WA15-120R	12 VDC	1250 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.62	Black	6'	0.4	UL/CSA	13.95	12.49	11.25	9.95
183433	WA15-120	12 VDC	1250 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	2.97	1.60	2.47	Black	6'	0.4	UL/CUL	13.95	12.49	11.25	9.95
191353	ADP-15FB	12 VDC	1250 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	3.48	2.23	1.20	Black	10' (clear)	0.4	UL/CUL	12.95	11.65	10.49	9.49
189325	57D12-1500	12 VDC	1500 mA	Cut, stripped and tinned **2** (w/ on-off switch)	3.40	2.60	2.20	Black	8'	1.5	UL	9.95	8.95	7.95	6.95
136881	DC1215F1	12 VDC	1500 mA	2.1 mm x 5.5 mm female **2**	3.40	2.70	2.20	Black	6'	1.5	UL	10.95	9.95	8.95	7.95
101291	DC1215F5	12 VDC	1500 mA	2.5 mm x 5.5 mm female **2**	3.40	2.70	2.20	Black	6'	1.5	UL	10.95	9.95	8.95	7.95
192786	MK135100	13.5 VDC	1000 mA	2.1 mm x 5.5 mm female **1**	2.90	2.27	1.95	Black	6'	1.0	UL	6.95	6.25	5.59	4.99
129314	DV-1250	14 VDC	360 mA	2.5 mm x 5.5 mm right angle female **2**	2.34	1.98	1.60	Black	6'	0.6	UL/CSA	3.49	2.95	2.49	1.95
123932	DC1407F1	14 VDC	700 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
170253	AEC4814B	14 VDC	730 mA	2.1 mm x 5.5 mm female **2** (3 AC prong)	2.79	1.80	1.49	Black	6'	1.1	UL/CSA	1.95	1.59	1.29	.99
153779	DC-10-06	15 VDC	300 mA	2.5 mm x 5.5 mm female **2**	2.44	1.90	1.60	Black	9'	0.7	UL/CSA	4.95	4.49	3.95	3.49
190001	DC1505F1	15 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.30	2.35	1.90	Black	6'	0.8	UL/CSA	5.95	5.35	4.79	4.29
189982	DC1505F5	15 VDC	500 mA	2.5 mm x 5.5 mm female **2**	2.30	2.35	1.90	Black	6'	0.8	UL/CSA	5.95	5.35	4.79	4.29
155803	DC1506F11	15 VDC	600 mA	2.1 mm x 5.5 mm female **1**	2.90	2.33	1.90	Black	6'	1.0	UL/CSA	5.95	5.35	4.79	4.29
181702	48D15800	15 VDC	800 mA	Cut, stripped and tinned	3.23	2.25	1.98	Black	6'	1.0	UL/CSA	4.95	3.95	3.49	2.95
151992	AD-SS-2	15 VDC	1000 mA	2.1 mm x 5.5 mm female **1**	3.13	2.00	1.88	Beige	6'	1.5	UL/CSA	7.95	6.95	6.25	5.59
191652	DC1510F12	15 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	3.26	2.20	1.90	Black	6'	1.0	UL/CSA	7.95	6.95	6.25	5.59
169391	WA15-150	15 VDC	1000 mA	2.1 mm x 5.5mm female **2** **(regulated)**	2.90	1.90	1.60	Black	6'	0.5	UL/CUL	12.95	11.49	10.49	9.49
162317	DC1605F1	16 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.23	2.35	1.90	Black	6'	0.8	UL/CSA	5.95	4.82	4.07	3.43
181729	CXV18250	18 VDC	250 mA	2.1 mm x 5.5 mm female **2**	2.61	2.04	1.60	Black	6'	0.6	UL	2.95	2.49	1.95	1.75
163272	48-18-500D	18 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.61	2.30	1.85	Black	6'	0.8	UL/CUL	6.95	5.95	5.35	4.79
168487	KWM020188	18 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.91	1.94	1.62	Black	6'	0.4	UL/CUL	14.95	13.49	11.95	10.95
102285	DC2404F1	24 VDC	400 mA	2.1 mm x 5.5 mm female **2**	3.00	2.30	2.00	Black	6'	0.9	UL/CUL	6.95	6.25	5.59	4.95
163635	DC2405F11	24 VDC	500 mA	2.1 mm x 5.5 mm female **1**	3.12	2.34	1.90	Black	6'	1.0	UL/CUL	6.95	6.25	5.59	4.95
174861	DCR2405F12	24 VDC	500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.35	2.68	2.16	Black	6'	1.3	—	7.95	6.95	6.25	5.59
191556	DC2405F5	24 VDC	500 mA	2.5 mm x 5.5 mm female **2**	3.12	2.34	1.90	Black	6'	1.0	UL/CUL	6.95	6.25	5.59	4.95
174879	DCR2405F52	24 VDC	500 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	3.35	2.68	2.16	Black	6'	1.3	—	7.95	6.95	5.95	5.35
139088	DC2405M3	24 VDC	500 mA	3.5 mm male **2**	3.12	2.34	1.90	Black	6'	1.0	UL/CUL	6.95	6.25	5.59	4.95
196322	P48240600A020G	24 VDC	600 mA	2.1 mm x 5.5 mm Female **2**	3.31	2.31	1.92	Black	6'	1.1	UL/CSA	6.95	6.25	5.59	4.95
167118	BC2424HP	24 VDC	750 mA	2.1 mm x 5.5 mm female **2**	3.34	2.67	2.20	Beige	6'	1.0	UL/CSA	6.95	5.95	5.35	4.79
168495	DC2408F1	24 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.91	1.94	1.62	Black	6'	0.4	UL/CUL/TUV	8.95	7.95	6.95	6.25
163651	DC2412F11	24 VDC	1200 mA	2.1 mm x 5.5 mm female **1**	3.84	3.01	2.56	Black	6'	2.0	—	10.95	9.95	8.95	7.95
163643	DC242F12	24 VDC	1200 mA	2.1 mm x 5.5 mm female **2**	3.84	3.01	2.56	Black	6'	2.0	—	10.95	9.95	8.95	7.95
117321	DC2412F5	24 VDC	1200 mA	2.5 mm x 5.5 mm female **2**	3.84	3.01	2.56	Black	6'	2.0	—	10.95	9.95	8.95	7.95
121241	DC2412M3	24 VDC	1200 mA	3.5 mm male **2**	3.37	2.70	2.22	Black	6'	2.0	—	10.95	9.95	8.95	7.95
160258	13A3546	30 VDC	500 mA	2.5 mm x 5.0 mm female **2**	3.62	2.45	2.04	Black	6'	1.5	UL/CSA	7.95	6.95	6.25	5.59
15309	DCM05	3, 4.5, 6, 7.5, 9, 12VDC	500 mA	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 **female** 2.5, 3.5 **male**, 9V battery snap (LED ind.)	2.98	2.15	2.10	Black	6'	0.7	UL/CSA	7.95	6.95	6.25	5.59
190641	DCM08	3, 4.5, 6, 7.5, 9, 12VDC	800 mA	1.5 x 5.5, 2.1 x 5.0, 2.1 x 5.5, 2.5 x 5.5 **fem** 2.5, 3.5 **male**, polarity sw. (LED ind.)	3.87	2.65	2.29	Black	6'	0.9	UL/CSA	8.95	7.95	6.95	6.25
123158	DCM10	1.5, 3, 4.5, 6, 7.5, 9, 12VDC	1000 mA	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 **female** 2.5, 3.5 **male**, 9V battery snap (LED ind.)	3.71	2.22	2.50	Black	6'	0.9	120 or 220VAC	8.95	7.95	6.95	6.25

DC Wall Transformers continued from two previous pages

Jameco's Low-Price Guarantee

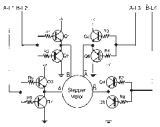
We'll match the advertised price of any like product. It's that simple!

For more DC 220/240VAC Table-Top and Wall Mount Power Supplies see pages 69 & 70

12-Bit Analog/Digital DAC and Stepper Motor Control Board

- High speed serial port interface up to 230,400 bits/sec
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V input
- 24 digital I/O (TTL compatible), 11 analog channels with 12-bit resolution
- PWM, period measurement & stepper motor functions
- Free 32-bit DLL, OCX and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.

Driver Schematic



Includes: Manual

Suggested Components for External Driver Circuit

Part No.	Qty	Designator	Description	Price
29655	4	R1-R4	1kΩ,1/4W resistor (10 pc. min.)	**$.19**
30859	4	R5-R8	330Ω,1/4W resistor (10 pc. min.)	**.19**
25857	4	Q1-Q4	MJE 3055T transistor	**.65**
76970	4	D1-D4	1N4003 diode (10 pc. min.)	**.04**

Part No.	Description	1	10
109911	Analog/digital DAC board	**$133.95**	**$119.95**

PONTECH Servo Controller Board

- Controls 1 to 8 servos per board, 8-bit precision
- Interface to PC through RS232 port @ 2400-19,200bps
- 5 channel, 8-bit A/D inputportfor reading 0 to 5V
- IR-receiver & transmitter feature
- Source/sink: 25mA per pin • 8k EEPROM
- Size: 1.7"L x 1.4"W (main board); 1.1"L x 0.9"W (infrared board)

Includes: Manual, supplement & sample code software

Part No.	Description	1	10
153648	Servo controller board	**$84.95**	**$76.45**

Scott Edwards Electronics, Inc.

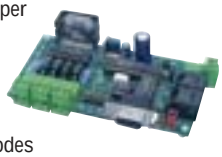
Mini SSC II Module (Serial Servo Controller)

- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, thus allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553, pg 158) or modular adapter from DE9 to RJ11 (P/N 114737, pg 158)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty

Part No.	Description	1	10
151001	Serial servo controller module	**$49.95**	**$42.95**

PONTECH 32-Bit Stepper Motor Controller

One Axis

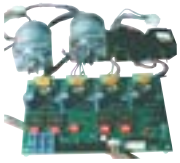


- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200 bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H • Weight: 0.7 lbs.

Includes: Manual and sample code software

Part No.	Description	1	10
153621	32-bit controller	**$159.95**	**$149.95**

rmv electronics
Multi-Stepper Motor Control Board



Shown w/ motors – not included

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 10 or 12 bits resolution
- 24-bit position register, can be read while motor is moving
- Linear acceleration/deceleration capability, up to 8500 step/sec.
- Full step (monophasic and biphasic), half step and external driver modes
- Current mode driver, drives coils up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles
- Size: 7.7"L x 5.0"W x 1.0"H • Weight: 0.7 lbs.

Part No.	Description	1	10
168727	Stepper motor contrl brd	**$389.95**	**$369.95**

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 185

Industrial Motion Controllers for Brush, Brushless and Stepper Motors by JR Kerr Automation Engineering

All controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. See below for RS232 to RS485 adapter.

KAE

184989: PIC-SERVO Motor Control Board
- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32 bit resolution
- Integrated power amplifier 3 amps continuous, 6 amps peak, 12 to 48VDC supply
- Limit switch inputs, general purpose analog input, PWM, Dir. output for use with external amps

185009: PIC-SERVO 3PH Motor Control Board for Brush or Brushless Motors
- For 3-phase brushless motors (with hall effect sensors) or conventional DC brush-type motors
- High current amplifier: 7 amps continuous, 10 amps peak, 12 to 48VDC supply
- Same features as 184989 above but w/ support for linear & circular interpolation using the PIC-SERVO CMC chipset

184997: PIC-STEP Motor Control Board
- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2 amps per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

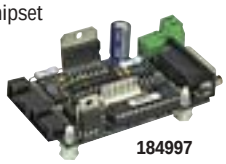
184962: PIC-I/O Multifunction I/O Control Board
- 12 I/O bits software configurable as inputs or outputs • One counter input
- Three 8-bit analog inputs, two PWM outputs with high current drivers

184971: Z232-485 serial port adapter
- Lets you operate the controllers above from any standard RS232 port

184954: Simple Sequencer stand-alone controller
- Programmable master controller for building stand-alone systems with the controllers above
- Plugs into a socket on the Z232-485 board above

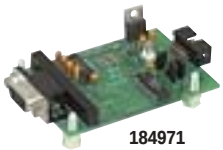
184989

185009



184997

184962



184971

184954

Part No.	Description	Size (L" x W" x H")	1	10
184989	PIC-SERVO motor control board	3.1 x 2.1 x 0.9	**$179.95**	**$161.95**
185009	PIC-SERVO 3PH motor control board	3.1 x 3.1 x 1.0	**239.95**	**215.95**
184997	PIC-STEP motor control board	3.1 x 2.1 x 0.9	**159.95**	**143.95**
184962	PIC-I/O multifunction I/O control	3.1 x 2.1 x 0.6	**99.95**	**89.95**
184971	Z232-485 serial port adapter	3.1 x 2.1 x 0.5	**59.95**	**53.95**
184954	Simple stand-alone sequencer	2.1 x 1.0 x 0.4	**59.95**	**53.95**

Bipolar and Unipolar Stepper Motors

SALE

130112 (Fig. 1)

117954 (Fig. 2)

163395 (Fig. 3)

168831 (Fig. 4)

105881 (Fig. 5)

151861 (Fig. 6)

173180 (Fig. 7)

169201 (Fig. 8)

192794 (Fig. 9)

- Excellent for precision control
- Can be operated in forward/reverse mode
- See pages 63-68 for compatible power supplies

Part Number	Product Number	Fig.	Step Angle	No. of Phases	Drive System	Volt. (VDC)	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Hole (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing 1	Pricing 10	Pricing 50
130112	23LQC202	1	5.0°	2	Bipolar	1.9	3	750	5	350	280	1.77	0.19	0.250	1.48	2.22	1.65	$1.29	$1.13	$1.01
174668	23LMC32908	1	1.8°	2	Bipolar	2.7	2	2000	4	360	4500	2.45	0.13	0.234	0.85	2.23	1.88	3.95	3.49	2.95
117954	LB82773-M1	2	7.5°	2	Bipolar	5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	2.95	2.49	1.99
163395 [1]	5017-935	3	0.9°	2	Bipolar	8.4	30	280	25	36	791	1.73	0.15	0.155	0.29	1.64	1.20	3.95	3.49	3.19
163408 [1]	4017-806	3	1.8°	2	Bipolar	9.2	38	240	52	36	664	1.73	0.15	0.155	0.23	1.66	1.25	2.19	1.98	1.78
168831	SM200050HL	4	1.8°	2	Bipolar	12	10	1000	18	85	625	1.72	0.10	0.196	1.18	1.50	1.66	8.95	6.95	5.49
105881 [3/4]	SM4203	5	3.6°	2	Bipolar	12	25	480	31	80	600	1.73	0.11	0.197	0.43	1.66	1.31	4.95	4.49	3.95
173180 [6]	30BY102AH	7	.09°	4	Unipolar	12	200	60	49.5	400	400	1.42	0.14	0.194	0.36	1.18	.68	9.95	8.95	7.95
151861	C42M048A04	6	7.5°	4	Unipolar	5	9	550	10	90	750	1.94	0.13	0.117	0.40	1.65	0.83	4.49	3.36	2.36
164056	M82101-P1	2	7.5°	3	Unipolar	5	20	255	5	9	94	1.4	0.13	0.078	0.35	1.00	0.46	4.95	4.49	3.95
171601 [2]	PF35T48L4	2	3.6°	4	Unipolar	7	20	350	9	40	680	1.68	0.14	0.078	0.47	1.38	0.58	3.49	2.95	2.49
105890 [4]	SM4200	5	3.6°	4	Unipolar	12	75	150	39	80	600	1.73	0.11	0.197	0.43	1.66	1.28	5.95	5.49	4.95
166705	PM42S-096	2	3.8°	4	Unipolar	12	84	140	16	60	450	1.95	0.13	0.117	0.40	1.66	1.64	3.95	3.55	3.19
172241	PF4248E188	2	5.5°	4	Unipolar	12	50	240	33	40	750	1.97	0.13	0.117	0.40	1.66	0.85	2.05	1.85	1.65
172259	PF4248E186	2	5.8°	4	Unipolar	12	50	240	38	85	700	1.97	0.13	0.117	0.39	1.65	0.85	3.95	3.49	2.95
169201	STP57D317	8	1.8°	4	Unipolar	24	81	160	68	80	600	2.65	0.18	0.250	0.75	2.20	2.10	5.95	5.49	4.95
192794 [5]	PM425048	9	7.5°	4	Unipolar	12	45	500	17.5	39	570	1.97	0.09	0.117	0.33	1.66	0.54	3.95	3.49	2.95

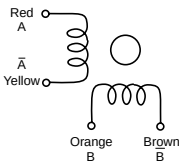
[1] **163395/163408:** Dual shaft
[2] **171601:** Dual shaft w/ 10 tooth
[3] **105881:** P/N 25216 (IC, MC3479P, pg 7) biphase stepper motor driver can be used to operate
[4] **105881/105890**: Use P/N 161998 for shaft coupler, see page 172
[5] **192794:** Single shaft w/ 12 tooth
[6] **173180:** Geared (7.5°/Step)

GBM Bipolar and Unipolar Stepper Motors

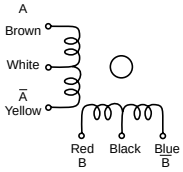
- Bearing type: ball
- Dielectric strength: 500V 50Hz/minute
- 18" lead wires • Step angle: 1.8°
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998, pg 172, for shaft coupler

GBM is an ISO-9001 Certified Company

Bipolar (Fig. 1)



Unipolar (Fig. 2)



NEMA 17 (155459)

NEMA 22 (162026)

Part Number	Product Number	Fig.	Nema Form	No. of Phases	Drive System	Voltage (VDC)	Phase Resistance (Ohms)	Current (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Hole (in.)	Shaft Diameter (in.)	Shaft Length (in.)	Motor Diameter (in.)	Motor Height (in.)	Weight (lbs.)	Pricing 1	Pricing 10	Pricing 50
172531	57BYG061	2	22	4	Unipolar	2.25	1.0	2250	2	340	340	2.65	0.2	0.250	1.2	2.3	2.0	1.4	$17.79	$16.02	$14.41
155432	42BYG228	2	17	4	Unipolar	12	30	400	23	220	2000	1.73	0.1	0.197	0.9	1.7	1.5	0.5	16.95	14.95	13.49
155459*	42BYG023	1	17	2	Bipolar	12	30	400	36	220	2100	1.73	0.1	0.197	0.6	1.7	1.3	0.5	16.95	14.95	13.49
172646	42BYG205	2	17	4	Unipolar	9.6	75	480	15	220	2300	1.73	0.1	0.197	0.9	1.7	1.4	0.5	14.95	13.49	11.95
172523	57BYG071	2	22	4	Unipolar	3.5	1.4	2500	2	340	3600	2.63	0.2	0.250	0.8	2.3	2.8	2.0	24.75	22.29	20.06
162026	57BYG084	2	22	4	Unipolar	12	20	600	22	725	6000	2.65	0.2	0.250	1.0	2.2	2.0	1.3	24.95	20.95	18.95

* dual shaft

12VDC Unipolar Stepper Motor

1.8° / Step

- No. of phases: 4
- Detent torque: 80 g-cm
- Holding torque: 600 g-cm
- Phase resistance: 81Ω
- Phase inductance: 68mH
- Current: 160mA
- Mounting hole size: 0.18"
- Shaft size: 0.75"L x 0.250"Dia.
- Motor size: 2.20"Dia. x 2.10"H

SALE

Part No.	Product No.	1	10	50
169201	STP57D317	$5.95	$5.49	$4.95

NMB 12VDC Unipolar Stepper Motor w/ Fly Wheel

7.5° / Step

SALE

- No. of phases: 4
- Detent torque: 600 g-cm
- Holding torque: 1200 g-cm
- Phase resistance: 100Ω
- Current: 120mA
- Mounting hole size: 0.123"
- Shaft size: 0.239"L x 0.118"Dia.
- Motor size: 1.38"Dia. x 0.77"H
- With 15 tooth gear(1.12"Dia. x .107"T)

Part No.	Product No.	1	10	50
174570	PM35L048HPM2	$.55	$.48	$.45

NMB 12VDC Unipolar Stepper Motor

7.5° / Step

- No. of phases: 4
- Detent torque: 320 g-cm
- Holding torque: 6400 g-cm
- Phase resistance: 20Ω
- Current: 600mA
- Mounting hole size: 0.09"
- Shaft size: 0.340"L x 0.157"Dia.
- Motor size: 2.20"Dia. x 0.85"H
- Weight: 0.58 lbs.

Part No.	Product No.	1	10	50
174553	PM55L048NB07	$4.95	$4.49	$3.95

Part Number Color Code
New Sale Refurbished Closeout

1.5-30 VDC Motors

MITSUMI
GBM NMB
MABUCHI MOTOR
star motor
JOHNSON ELECTRIC

154915/154923 177498 171598 181411 192807 153656 174991
181112 174692 162579 173673 181964 173681 168436

Part Number	Product Number	Manufacturer	Nominal Voltage	Voltage Range	Current (Amps)	RPM (max.)	Torque (g/cm)	Terminal Type	Shaft Dia.	Shaft Length	Size (D" x L")	Pricing 1	10	100
154915	ST-130-12240[4]	Star Motor	3VDC	1.5V-3V	0.070	5200	4.0	0.8"/solder	0.08"	0.33"	.178 x 1.08	$1.09	$.89	$.55
154923	ST-130-22770[4]	Star Motor	3VDC	1.5V-3V	0.240	16000	8.3	0.8"/solder	0.08"	0.31"	.178 x 1.14	.79	.69	.63
177498	RC280RA-2485	Mabuchi Motor	4.5VDC	3V-14V	0.150	10300	33.3	11"/solder	0.08"	0.43"	0.95 x 1.20	1.75	1.27	.99
171598	FFO3OPN[1]	Mabuchi Motor	4.7VDC	3V-14V	0.045	9800	14.4	2" wires	0.06"	0.23"	0.61 x 0.73	1.95	1.75	1.59
181411	HC685G-61810	Johnson Electric	5.0VDC	3V-14V	0.047	10000	18.8	.187"/solder	0.13"	0.54"	1.40 x 1.98	3.95	2.97	2.36
192807	RF500TB	Mabuchi Motor	6.0VDC	1.5-9V	0.028	3700	14.5	.08"/solder	0.08"	0.35"	1.25 x 0.76	1.75	1.49	1.25
153656	RS550PF	Mabuchi Motor	7.2VDC	4V-10V	1.400	6500	44.1	.15"/solder	0.13"	0.66"	1.45 x 2.25	2.95	2.49	1.95
174991	6424CL09WB20	NMB	10VDC	8V-12V	0.430	4100	—	8" wires	0.12"	0.64"	1.62 x 0.64	3.49	2.95	2.65
181112	M25N-2	Mitsumi	12VDC	5V-15V	0.018	3000	18	11"/solder	0.08"	0.26"	0.97 x 1.30	2.95	2.65	2.39
174692	21226-384221	Johnson Electric	12VDC	9V-14V	0.015	3000	—	.11"/solder	0.08"	0.69"	0.97 x 1.19	1.25	1.09	.99
162579	TID20E	Operating Tech T&I	12VDC	9V-14V	0.025	2150	—	.20"/solder	0.12"	0.48"	1.48 x 1.42	1.49	1.25	.99
173673	HC315MG	Johnson Electric	12VDC	9V-14V	0.670	4600	9.8	.11"/solder	0.09"	0.50"	1.14 x 1.37	1.25	1.09	.65
181964	NF203G12	Johnson Electric	12VDC	9V-14V	0.030	5000	—	.07"/solder	0.08"	0.57"	0.95 x 1.20	1.49	1.35	1.19
173681	HC610F[2]	Johnson Electric	12VDC	9V-14V	0.220	6600	20.0	.187"/fast on	0.12"	0.92"	1.40 x 1.80	2.95	2.65	2.39
168436	1911520YSP	Soho	12VDC	9V-14V	0.650	1860	56.5	.187"/solder	0.13"	0.52"	1.58 x 2.37	3.25	2.75	1.95
170051	KC613L	Johnson Electric	13VDC	9V-15V	0.250	6200	28.6	.25"/fast on	0.12"	0.75"	1.40 x 2.00	1.45	1.29	1.15
190035	HC685L	Johnson Electric	15VDC	7.2V-24V	0.350	7800	23.2	.187"/solder	0.13"	0.38"	1.47 x 2.25	1.75	1.49	1.25
150666	HC675LG[3]	Johnson Electric	24VDC	9V-30V	0.390	4100	23.2	10.5" wires	0.12"	0.38"	1.47 x 2.25	1.95	1.75	1.59
176567	HC675LGS[3]	Johnson Electric	24VDC	9V-30V	0.390	4100	18.4	10.5" wires	0.13"	0.35"	1.47 x 2.07	.19	.18	.17

170051 190035 150666 176567

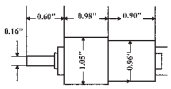
[1] **171598:** Shaft pulley type with ten-tooth configuration; pulley size: .298"W x .38"D
[2] **173681:** Eccentric gear
[3] **150666/176567:** Shaft pulley type with 16-tooth configuration
[4] **154915/154923:** Use shaft coupler P/N 161998, pg 172

12 and 24 VDC Reversible Gear Head Motors

HSIANG NENG

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC

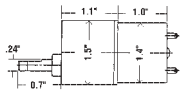
167038 159417 155011



HN27GD Series

GH30GM Series

GH35GM Series



HN27GD Series

Part Number	Product Number	Rated Voltage	Operating Range (VDC)	No Load Current (mA)	No Load Speed (rpm)	Started Torque (kg-cm)	Motor Size Gear Ratio	Gear Size Dia. x Lgth (in.)	Motor Size Dia. x Lgth (in.)	Shaft Size Dia. x Lgth (in.)	Pricing 1	10	50
167038	GH12-0953Y	12	4.5 – 24	45	14	1.2	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	$14.95	$12.95	$10.95
167046	GH12-1828Y	12	4.5 – 24	95	37	1.3	90:1	1.1 x 1.3	1.1 x 0.8	.16 x .60	19.95	16.95	14.95

GH30GM Series

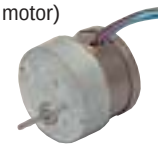
170641	GH12-1828Y-10	12	6.0 – 24	45	10	3.5	332:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	$19.95	$17.95	$15.95
153437	GH12-1045Y	12	3.0 – 12	35	15	0.8	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	14.95	13.49	11.95
159417	GH12-1921Y	12	4.5 – 12	150	42	8	132:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	17.95	14.49	12.95
162190	GH12-1324Y225	12	4.5 – 12	65	225	0.7	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	14.95	12.49	10.95

GH35GM Series

155011	GH12-1926	12	4.5 – 12	55	2	15	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	$19.95	$17.95	$14.95
155820	GH12-1830Y-P	12	4.5 – 12	50	4.5	13	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	19.95	16.49	14.95
155838	GH12-1641T-L	12	3.0 – 12	65	20	10	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	19.95	16.49	14.49
152910	GH12-1926Y	12	4.5 – 12	48	44	11.8	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	19.95	17.95	15.95
151440	GH12-1632TI	12	4.5 – 12	75	69	11	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	19.95	16.49	14.49
155854	GH12-1641T-F	12	3.0 – 12	65	87	7	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	19.95	16.49	14.49
155862	GH12-1926Y-F	12	4.5 – 12	60	100	5	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	19.95	17.95	14.95
161373	GH12-1345T	12	4.5 – 12	69	150	3	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	19.95	16.49	14.49
161381	GH12-1634T	12	4.5 – 12	111	200	3.6	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	17.95	14.95
164785	GH12-1640Y	12	4.5 – 24	45	300	0.8	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	17.95	14.95
176049	GH12-1640Y00	24	12 – 24	140	2	6	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	18.95	16.95	15.49
176031	GH24-1640Y06	24	12 – 24	140	65	2	90:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	17.95	15.95
176014	GH24-1640Y11	24	12 – 24	140	116	1.5	50:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	16.95	14.95
176022	GH24-1640Y19	24	12 – 24	140	193	1.0	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	16.95	14.95

24V AC/DC Motor With Gearbox

Synchronous / Bipolar Stepper



- 20 rpm (as synchronous motor)
- 0.5 degree step angle (as stepper motor)
- Size: (motor) 1.86"Dia. x 1.0"L
- Size: (gearbox) 2.1"Dia. x 0.7"L

Power requirements:
24VAC@50/60Hz (for synchronous motor operation)/24VDC (for stepper motor operation)

Part No.	Description	1	10
176364	Motor w/ gearbox	$24.95	$21.49

TimeTech 120VAC Gear Motor

4.8 rpm – 3.5 Watt

- No load current: 25mA
- Operating voltage: 120VAC @ 60Hz
- Terminals: 0.19"
- Screw down tabs for mounting
- Shaft Dia: 0.27" • Shaft length: 0.32"
- Overall size: 2.0"Dia. x 0.8"Thick
- UL approved

Part No.	Product No.	Description	1	10	100
160987	S430	Gear motor	$2.49	$2.25	$1.99

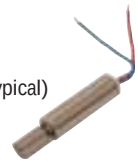
8VDC 4500RPM Vibrating Motor

- Typical applications: beepers, small toys, cellular phones
- Rated RPM: 4500 or more @ 8VDC
- Direction of rotation: dual
- Operating voltage: 8VDC @ 45mA
- Operating voltage range: 2.5VDC – 8.8VDC (max.)
- Starting current @ operating voltage: 60mA or less
- Size: 0.55"Dia. x 0.13"Thick

SALE

Part No.	Description	1	10	100
185228	Vibrating motor	$2.95	$2.12	$1.56

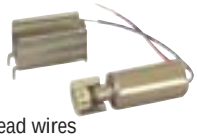
1.3VDC 8500RPM Vibrating Motor



- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 8500 @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3V @ 65mA (typical)
- Lead length: 0.75"
- Size: (motor) 0.16"Dia. x 0.55"L
- Size: (shaft) 0.15"Dia. x 0.23"L

Part No.	Description	1	10	100
175396	Vibrating motor	$5.95	$5.35	$4.79

Namiki 1.3VDC 7500RPM Vibrating Motor



- Typical applications: cellular phones, pagers and toys
- Operating voltage: 1.3VDC @ 80mA
- Rated RPM: 7500 @ 1.3VDC
- Clock-wise rotation • 1.1" lead wires
- Size: (motor) 0.47"L x 0.24"Dia.
- Size: (shaft) 0.22"L x 0.10"Dia.

Part No.	Description	1	10	100
190078	Vibrating Motor	$5.95	$5.35	$4.79

1.3VDC 7000RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 7000rpm @ 1.3VDC
- Stall current: 112mA @ 1.3VDC
- Lead length: 0.7"
- Direction of rotation: clockwise
- Operating voltage: 1.3VDC @ 62mA
- Operating voltage range: 0.7VDC – 1.6VDC (max.)
- Size: (motor) 0.28"Dia. x 0.67"L
- Size: (shaft) 0.10"Dia. x 0.18"L

Part No.	Description	1	10	100
175062	Vibrating motor	$3.95	$3.49	$2.95

110VAC Air Pump

- Air flow: 8 liter/min
- Noise level: 27dB
- Input voltage: 110VAC @ 50Hz
- Input wattage: 9 watts
- Normal pressure: 1.42psi
- Closed pressure: 2.6psi
- Size: 5.7"L x 5.0"W x 3.4"H • Weight: 5.6 lbs.

SALE

Part No.	Product No.	1	10
177543	DB8L	$50.55	$45.46

Seiko Epson 7.2VDC Unipolar Stepper Motor

7.5˚ / Step

SALE

- No. of phases: 4
- Detent torque: 90 g-cm
- Holding torque: 750 g-cm
- Phase inductance: 10mH
- Shaft size: 2.53"L x .08"Dia. • Coil resistance: 30Ω
- Mounting hole space: 1.67" • Current: 550mA
- Mounting hole dia.: 0.100" • Voltage: 7.2VDC
- Motor size: 1.38"Dia. x 0.5"H

Part No.	Product No.	1	10	50
169711	780387	$1.05	$.94	$.84

AIRPAX 12V Unipolar Linear Stepper Motor

- Operating voltage: 12VDC
- 325 steps maximum both directions
- 11" lead wires
- Distance travel/step:0.003"
- Shaft size: contracted .077"Dia. x 0.14"L extended .077"Dia. x 1.09"L
- Motor size: 1.86"Dia. x 0.92"L

SALE

Part No.	Product No.	1	10	50
162587	A92218M	$4.75	$4.25	$3.85

Solenoids and Relays

Rayex General Purpose Relay

Rayex LB4H Series

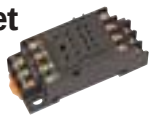
SALE

- Mechanical life: 10,000,000 operations
- 4PDT • 14-Pins
- Coil voltage: 24VDC
- Insulation resistance: 1,500MΩ @ 500VDC
- Electrical life: 100,000 operations min. at rated load
- Contact rating: 240VAC/24VDC @ 5A
- P&B cross reference: KHAU17D1124

Part No.	Product No.	1	10	50	100
175601	LB4H-24DS	$4.95	$4.45	$3.99	$3.59

Rayex General Purpose Relay Socket

LB4H Socket

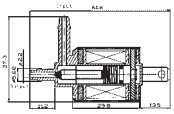


- Din rail snap socket for LB4H relays
- P&B cross reference: PYF14AA

Part No.	Product No.	Pins	1	10	50
175556	PYF14AA	14	$3.95	$3.49	$2.95

See pages 35-46 for Jameco's Electromechanical Products!

12VDC Solenoid Valve



- Operating voltage: 12VDC
- Operational temp: -29˚C to 85˚C
- Current: 350mA
- Air leakage: 1c.c./min. max. 4psi
- 0.250" quick disconnect terminals
- Size: 1.2"L x 0.92"Dia

Part No.	Description	1	10	50
169834	Solenoid valve	$5.95	$5.35	$4.75

Shindengen 24VDC Continuous Tubular Pull Solenoid

- Holding force: 3 lbs.
- Typical coil resistance: 131Ω
- Power: 8 watts
- 2" lead wires
- Size: 3.1"L x 1.0"Dia.
- Weight: 2.8 lbs.

Part No.	Description	1	10	50
128557	24VDC solenoid	$3.95	$3.49	$2.95

12VDC Continuous Tubular Push/Pull Solenoids

145314 142463 163803 149761

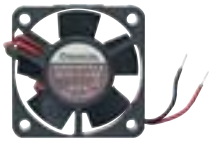
- 12VDC nominal voltage continuous
- Life expectancy: 2,000,000 cycles

* Manufactured by Guardian – #A420-067074

Part No.	Type	Coil Res. (±10%)	Power Consum.	Holding Force (lbs. @ 20°C)	Wires (in.)	Size (ins.) (L x Dia.)	Shaft Dia. (in.)	Wt. (lbs.)	Pricing 1	10	50
145314	Push/pull	89Ω	2.0W	1.12	3.5	1.24 x .73	0.110	0.05	$7.95	$6.95	$6.25
142463	Pull	36Ω	4.0W	0.63	2.0	1.63 x .43	0.150	0.04	4.95	4.49	3.95
163803*	Push	42.8Ω	3.4W	0.75	9.0	2.00 x .60	0.156	0.10	4.95	4.45	3.99
149753	Push	36Ω	4.0W	0.75	7.0	1.90 x .50	0.063	0.05	9.95	8.95	7.99
149761	Push	20.7Ω	7.0W	1.50	7.0	2.50 x .60	0.098	0.10	8.95	7.95	6.95

Part Number Color Code
New Sale Refurbished Closeout

163475


102921

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires
- PBT black thermo plastic frame and impeller
- Agency approved fans
- Low power consumption
- Low acoustical noise rating

SALE

102939

134586

Part Number	Mfg. (may vary)*	Product Number	Voltage	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing Ball/Sleeve	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
163475	Nidec	C34427-55APP	5 VDC	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45	—	22	2"	$4.49	$3.95	$3.49	$2.95
131246	Adda	AD0205LX-G50	5 VDC	1.00 x 1.00 x 0.40	1.8	Sleeve	100	0.6	UL/CSA/CE	18.7	5.5"	10.95	9.95	8.95	7.95
142851	Shicoh	0410N-5E	5 VDC	1.60 x 1.60 x 0.40	4.2	Ball	190	0.9	—	23	2.5"	6.95	6.25	5.59	4.95
196373	Sunon	KD0504PFB3-8	5 VDC	1.60 x 1.60 x 0.40	5.5	Ball	230	1.2	UL/CUL	23	2"	6.95	6.25	5.59	4.95
102921	Sunon	KD0504PFS2	5 VDC	1.60 x 1.60 x 0.40	6.3	Sleeve	250	0.6	UL/CSA/TUV	24.3	12"	7.95	6.95	6.25	5.59
166887	Copal	F412R-O5LB-09	5 VDC	1.60 x 1.60 x 0.50	3.9	Ball	100	0.5	—	16	7"	5.95	5.35	4.79	3.95
171678	Delta	AFB0405HHD	5 VDC	1.60 x 1.60 x 0.80	8.6	Ball	700	2.0	—	36	2.5"	3.95	3.49	2.95	2.49
102912	Sunon	KD1202PFB2-8	12 VDC	1.00 x 1.00 x 0.40	2.0	Ball	60	0.7	UL/CSA/TUV	30	6"	12.95	11.95	10.95	9.95
162907	Elina	KDA123510MB	12 VDC	1.40 x 1.40 x 0.40	4.5	Ball	120	1.5	UL/CSA	21	3"	5.95	5.35	4.79	4.25
191476	Common Wealth	FP-108HX/DC	12 VDC	1.60 x 1.60 x 0.40	5.4	Sleeve	80	0.96	—	29	12"	4.95	4.49	3.95	3.55
102939	Jamicon	JF0410S1H	12 VDC	1.60 x 1.60 x 0.40	6.3	Sleeve	110	1.3	UL/CSA/TUV/CE	34.7	10.5"	5.95	5.35	4.79	3.95
189691	Sunon	KD1204PFS2	12 VDC	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	6.95	6.25	5.59	4.95
161699	Sunon	KD1204PFB2-8	12 VDC	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	6.95	6.25	5.59
174131	Jamicon	JF0413S1M	12 VDC	1.60 x 1.60 x 0.50	3.8	Sleeve	90	1.1	UL/CSA/TUV	29	14"	3.49	2.95	2.65	2.39
174123	Jamicon	JF0413B1M	12 VDC	1.60 x 1.60 x 0.50	3.8	Ball	90	1.1	UL/CUL/TUV	28	14"	4.25	3.75	3.49	2.95
154851	NMB	1606KL-04W-B50	12 VDC	1.60 x 1.60 x 0.60	8	Ball	110	1.0	UL/CSA/VDE	34	5"	6.95	6.25	5.59	4.95
136178	Adda	AD0412MS-C70	12 VDC	1.60 x 1.60 x 0.80	5	Sleeve	110	1.32	UL/CSA	23	9"	3.49	2.95	2.65	2.39
195899	Sunon	KDE1204PKS2	12 VDC	1.60 x 1.60 x 0.80	6.5	Sleeve	70	0.9	UL/CSA/TUV	25.5	12"	6.95	6.25	5.59	4.95
75344	Delta	DFB0412M	12 VDC	1.60 x 1.60 x 0.80	7.3	Ball	80	0.8	UL/CSA/TUV	28	10"	5.95	4.95	4.49	3.95
195881	Common Wealth	FP-108G/DC(S1)	12 VDC	1.60 x 1.60 x 0.80	7.6	Ball	160	1.92	UL/CSA/CE	32	12"	7.95	6.95	6.25	5.59
139601	Adda	AD0512HS-D71	12 VDC	2.00 x 2.00 x 0.60	12	Sleeve	100	1.2	UL/CSA/CE	29	12"	6.95	6.25	5.59	4.95
147491	Shicoh	0610-12HH	12 VDC	2.36 x 2.36 x 0.40	16.2	Ball	150	1.8	—	38	5"	5.95	5.35	4.79	3.95
104205	Panaflo	FBA06T12L	12 VDC	2.36 x 2.36 x 0.60	12	Sleeve	130	1.1	—	24	6"	6.95	5.95	5.49	4.95
195944	Adda	AD612MS-D71GL	12 VDC	2.36 x 2.36 x 0.60	14.2	Sleeve	110	1.32	UL/CSA/TUV/CE	28.8	6"	7.95	6.95	6.25	5.59
151327	NMB	2406KL-04W-B40-L00	12 VDC	2.36 x 2.36 x 0.60	16	Ball	130	1.6	UL/CSA/VDE/CE	31	9"	6.95	5.95	5.59	4.95
175046	Globe Motors	D24-B08A-04W3-000	12 VDC	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	5.95	4.95	4.49	3.95
144160	Adda	AD0612LB-C70GL	12 VDC	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	5.95	5.25	4.75	3.25
189595	Sunon	KD1206PKS2	12 VDC	2.36 x 2.36 x 0.80	16.5	Sleeve	150	1.8	UL/CSA/TUV/CE	31	12"	5.95	5.35	4.79	4.29
185818	Cheng	CHA6012DB	12 VDC	2.36 x 2.36 x 0.90	20.5	Ball	180	2.5	UL	33	12"	4.95	4.49	3.95	3.49
105291	Nidec	TA225DC-A32313-16	12 VDC	2.36 x 2.36 x 1.00	11	Ball	70	0.8	—	34	9"	3.49	2.95	2.65	2.39
195901	Jamicon	JF0625S1L	12 VDC	2.36 x 2.36 x 1.00	15.3	Sleeve	170	2.04	UL/CSA/TUV	25.3	10"	3.95	3.55	3.19	2.85
75352	Common Wealth	FP108FDC12VS2	12 VDC	2.36 x 2.36 x 1.00	15.5	Sleeve	110	1.3	UL/CSA/TUV/CE	25	12"	4.95	4.49	3.95	3.25
195928	Jamicon	JF0625S1M	12 VDC	2.36 x 2.36 x 1.00	17.6	Sleeve	200	2.4	UL/TUV/CE	28.5	10"	4.95	4.49	3.95	3.25
136143	Delta	SB0612M	12 VDC	2.36 x 2.36 x 1.00	17.7	Sleeve	200	2.4	UL/CSA/VDE	26.5	5"	4.95	4.49	3.75	3.25
147029	Nidec	TA225DC-M33455-16	12 VDC	2.36 x 2.36 x 1.00	20	Ball	220	2.6	UL/CSA	47	11"	5.95	5.35	4.79	3.95
102947	Jamicon	JF0625S1H	12 VDC	2.36 x 2.36 x 1.00	20.5	Sleeve	230	2.7	UL/CSA/TUV	30.5	11"	4.95	4.49	3.95	3.25
150421	Jamicon	JF0625B1H	12 VDC	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	5.95	5.35	4.79	4.25
191548	CommonWealth	FP108FDC12VS1B	12 VDC	2.36 x 2.36 x 1.00	21	Ball	130	1.6	UL/CSA/TUV/CE	30	12"	6.95	6.25	5.59	4.95
195910	Sunon	KD1206PTS1	12 VDC	2.36 x 2.36 x 1.00	21.7	Sleeve	190	2.3	UL/CSA/TUV	34	12"	6.95	6.25	5.59	4.95
195936	Adda	AD7512HB	12 VDC	2.98 x 2.98 x 1.18	10.3	Ball	240	2.88	CE	38.5	12"	11.95	10.95	9.95	8.95
134586	Delta[1]	BFB0712H	12 VDC	2.98 x 2.98 x 1.18	11.3	Ball	360	2.6	UL/CSA/TUV/VDE	38	4"	8.95	7.95	6.95	5.95
109081	Adda	AD0812HS-D71	12 VDC	3.15 x 3.15 x 0.60	29	Sleeve	190	2.3	UL/CSA/TUV/CE	31.4	12"	8.95	7.95	6.95	6.25
154675	Panaflo	FBA08T12H	12 VDC	3.15 x 3.15 x 0.60	33.5	Sleeve	260	2.4	UL/CSA	34	11"	8.95	7.95	6.95	6.25
141920	Adda	AD0812HB-C70	12 VDC	3.15 x 3.15 x 0.80	27.3	Ball	240	2.9	UL/CSA/CE	34	12"	9.95	8.95	7.95	6.95
16993	Various[2] *	FAN7315SL	12 VDC	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12"*	5.95	5.35	4.79	3.95
75361	Various*	FAN6315BL	12 VDC	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12"*	5.95	4.95	4.49	3.95
131748	NMB	3110KL-04W-B20	12 VDC	3.15 x 3.15 x 1.00	28	Ball	140	1.3	UL/CSA	25	9"	6.95	6.25	5.59	4.95
154288	Sunon	KDE1208PTS3-6	12 VDC	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	4.95	4.49	3.95	3.25
195952	Panasonic	FMB-08A12M	12 VDC	3.15 x 3.15 x 1.00	30	Sleeve	124	1.49	UL/CSA	28	11"	5.95	5.35	4.79	4.29
123529	Adda	AD0812MS-A70GL	12 VDC	3.15 x 3.15 x 1.00	32	Sleeve	150	1.8	UL/CSA/TUV	28.3	12"	5.95	5.35	4.79	3.95
195987	Panasonic	FBA-08A12M	12 VDC	3.15 x 3.15 x 1.00	32.1	Sleeve	170	1.49	UL/CSA	28	4.5"	4.95	4.49	3.95	3.49
166959	NMB (Smart Fan)†	3110NL-012Q340-00	12 VDC	3.15 x 3.15 x 1.00	35	Ball	290	3.5	UL/CSA	35	2"	6.95	6.25	5.59	4.95
195979	Cheng	CHA8012CS-L	12 VDC	3.15 x 3.15 x 1.00	37.1	Sleeve	170	2.04	UL	32	13"	7.95	6.95	6.25	5.59
151335	Delta (Smart Fan)†	DFC0812B	12 VDC	3.15 x 3.15 x 1.00	37.4	Ball	200	2.4	UL/CSA/TUV	32	17"	9.95	8.95	7.95	6.95
189608	Protechnic[3]	MGT8012HS	12 VDC	3.15 x 3.15 x 1.00	38.3	Sleeve	240	2.9	UL/CSA/TUV/CE	31	13"/3 lead	6.95	6.25	5.59	4.95
195961	Protechnic	MGL8012HS	12 VDC	3.15 x 3.15 x 1.00	38.3	Sleeve	200	2.88	UL/CSA/TUV	31	13"	7.95	6.95	6.25	5.59

[1] **134586:** Blower type fan [2] **16993:** Replacement for the PC/XT computer power supply fan [3] **185826/189608/189616:** Speed sensor
† Temp Control: 151335/163601/163619 (35°C); 166959 (40°C); 162739 (50°C, 3 leads) * Specifications may vary

DC Brushless Fans continued on page 79

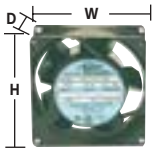
102955

75467

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires
- PBT black thermo plastic frame and impeller
- Agency approved fans
- Low power consumption
- Low acoustical noise rating

SALE



102875

191628

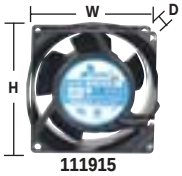
Part Number	Mfg. (May Vary)	Product Number	Voltage	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing Ball/Sleeve	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
191599	NMB	3110KL-04W-B50	12 VDC	3.15 x 3.15 x 1.00	39	Ball	230	2.7	CSA	34	10"	$7.95	$6.95	$6.25	$5.59
185834	Panaflo	FBM08A12H	12 VDC	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1	—	32	11"	6.95	5.95	5.49	4.95
185826	NMB [3]	3110KL-04W-B69	12 VDC	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13"/3 lead	7.95	6.95	6.25	5.59
102955	Sunon	KD1208PTB1-6	12 VDC	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	7.95	6.95	6.25	5.59
172460	Nidec [4]	TA300DCM33406-68	12 VDC	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11"/3 lead	7.95	6.95	5.93	5.35
189755	Cheng	CHA8012DB	12 VDC	3.15 x 3.15 x 1.00	44.3	Ball	300	3.6	UL	37	2" w/conn	4.95	4.49	3.75	3.25
108425	Cheng	CHA9212AB	12 VDC	3.63 x 3.63 x 1.00	31	Ball	120	1.7	—	24	6" w/conn	5.95	5.35	4.79	4.25
191601	NMB	3610KL-04-B20	12 VDC	3.63 x 3.63 x 1.00	34	Ball	120	1.3	UL/CSA/TUV	27	12"	5.95	5.35	4.79	4.29
154641	Nidec	D09T12PH (TA350DC)	12 VDC	3.63 x 3.63 x 1.00	42	Ball	170	2.5	—	48	11"	6.95	6.25	5.59	4.95
195995	Innovative	SP922512H	12 VDC	3.63 x 3.63 x 1.00	42.3	Sleeve	320	3.12	UL/CSA/TUV/CE	40	12"	4.95	4.49	3.95	3.49
75441	Common Wealth	FP108BDC12VS1	12 VDC	3.63 x 3.63 x 1.00	45	Sleeve	320	3.1	UL/CSA/TUV/CE	32	10"	5.95	5.35	4.79	3.95
196015	Cheng	CHA9212CB	12 VDC	3.63 x 3.63 x 1.00	44.1	Ball	190	2.28	UL/CSA	31	12"	6.95	6.25	5.59	4.95
196007	Jamicon	JF0925S1M	12 VDC	3.63 x 3.63 x 1.00	45.4	Sleeve	200	2.4	UL/CSA/TUV/CE	34	12"	5.95	5.35	4.79	4.29
196023	Jamicon	JF0925B1M	12 VDC	3.63 x 3.63 x 1.00	45.4	Ball	200	2.4	UL/CSA/TUV	95	10"	6.95	6.25	5.59	4.95
189780	Delta	DFB0912H	12 VDC	3.63 x 3.63 x 1.00	49.5	Ball	300	3.1	UL/CSA/TUV	35	5"	7.95	6.95	5.95	5.59
172478	Delta [6]	DFB0912H-R00	12 VDC	3.63 x 3.63 x 1.00	49.5	Ball	300	3.1	UL/CSA,/VDE/CE	35	8"/3 lead	6.95	5.95	5.35	4.79
190983	Sunon	KD1209PTB1-6A	12 VDC	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	8.95	7.95	6.95	6.25
116476	Jamicon	JF0925S1H	12 VDC	3.63 x 3.63 x 1.00	52	Sleeve	350	4.2	UL/CSA/TUV	37	10"	6.95	6.25	5.59	4.95
189616	Protechnic [3]	MGT9212XS	12 VDC	3.63 x 3.63 x 1.00	55	Sleeve	320	3.8	UL/CSA/TUV	31.5	13"/3 lead	6.95	6.25	5.59	4.95
162739	NMB (Smart Fan)†	3610KL-04W-B56	12 VDC	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10"/3 lead	7.95	6.95	6.25	5.59
102963	Nidec	TA350DC-M33503-55	12 VDC	3.63 x 3.63 x 1.00	56	Ball	400	4.8	UL/CSA	45	8"	8.95	7.95	6.95	6.25
174140	Common Wealth	FP108MS3	12 VDC	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	5.95	4.95	4.49	3.95
75467	NMB	4710NL-04W-B30	12 VDC	4.68 x 4.68 x 1.00	70	Ball	320	2.9	UL/CSA/VDE/CE	34	12"	7.95	6.95	6.25	5.59
174916	NMB	4710NL-04T-B30	12 VDC	4.68 x 4.68 x 1.00	70	Ball	320	2.9	UL/CSA/VDE/CE	34	terminals	5.95	5.35	4.79	3.95
174086	Jamicon	JF1225S1M	12 VDC	4.68 x 4.68 x 1.00	74	Sleeve	250	3.0	UL/CSA/CE	37	11"	5.95	5.35	4.79	3.95
102875	Delta	WFB1212H	12 VDC	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	9.95	8.95	7.95	6.95
174924	Globe Motors	D47-B10A-04T3-000	12 VDC	4.68 x 4.68 x 1.00	90	Ball	740	6.8	UL/CSA	39	terminals	6.95	6.25	5.59	4.95
163619	NMB (Smart Fan)†	4710NL012P535P0	12 VDC	4.68 x 4.68 x 1.00	90	Ball	740	8.9	—	38.5	12"	3.95	3.55	3.19	2.75
174941	Globe Motors [5]	D47-B15A-04T2-100	12 VDC	4.68 x 4.68 x 1.50	75	Ball	520	5.3	UL/CSA/TUV	38	terminals	5.95	5.35	4.79	4.29
174967	NMB [4]	4715KL-04W-B29	12 VDC	4.68 x 4.68 x 1.50	97	Ball	520	4.8	UL/CSA/TUV/CE	40	12"/3 lead	6.95	6.25	5.59	4.95
159020	Sunon	KDE1212PMS1-6A	12 VDC	4.68 x 4.68 x 1.50	107	Sleeve	570	6.8	UL/CSA/TUV	41	12"	11.95	10.95	9.95	8.95
163601	Delta (Smart Fan)†	WFC1212BE	12 VDC	4.68 x 4.68 x 1.50	108	Ball	650	6.6	UL/CSA/VDE	41.3	12"	12.95	11.95	10.95	9.95
94625	Sunon	KD1212PMB1-6A	12 VDC	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	24	12"	11.95	10.95	9.95	8.49
189851	Delta	WFB1212HE	12 VDC	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	12.95	11.95	10.95	9.95
175020	NMB	6820PL-04W-B30	12 VDC	6.75 x 6.75 x 2.00	210	Ball	1900	21.8	UL/CSA/TUV	49	13"	14.95	13.49	11.95	10.95
100909	Sunon	KD2404PKS2	24 VDC	1.60 x 1.60 x 0.80	6.5	Sleeve	50	1.2	UL/CSA/TUV/CE	25.5	12"	7.95	6.95	6.25	5.59
140661	NMB	2408NL-05W-B60	24 VDC	2.36 x 2.36 x 0.80	18.4	Ball	100	2.4	—	31	2"	3.95	3.55	3.19	2.75
174107	Jamicon	JF0625S2M	24 VDC	2.36 x 2.36 x 1.00	18	Sleeve	130	3.1	UL/TUV	28.5	10"	3.49	2.95	2.65	2.39
189860	Jamicon	JF0625B2M	24 VDC	2.36 x 2.36 x 1.00	18	Ball	130	3.1	UL/CSA/TUV/CE	28.5	10"	5.95	4.95	4.49	3.95
146093	NMB	2410ML-05W-B40	24 VDC	2.36 x 2.36 x 1.00	22	Ball	120	2.2	UL/CSA/VDE/CE	33.5	2.5"	6.95	6.25	5.59	4.95
174078	Jamicon	JF0825S2L	24 VDC	3.15 x 3.15 x 1.00	26	Sleeve	200	2.4	UL/CUL/TUV	28	10"	3.95	3.55	3.19	2.75
112408	Jamicon	JF0825B2M	24 VDC	3.15 x 3.15 x 1.00	32	Ball	130	3.1	UL/CSA/TUV	28	10"	6.95	6.25	5.59	4.95
191572	Nidec	TA300DC-M33411-16	24 VDC	3.15 x 3.15 x 1.00	35	Ball	130	3.1	UL/CSA	45	11"	7.95	6.95	6.25	5.59
162923	Jamicon	JF0825S2H	24 VDC	3.15 x 3.15 x 1.00	39.2	Sleeve	150	3.6	UL/CSA/TUV	31	10"	4.49	3.95	3.49	2.95
136160	Jamicon	JF0825B2H	24 VDC	3.15 x 3.15 x 1.00	39.2	Ball	150	3.6	UL/CSA/TUV	31	12"	7.95	6.95	5.59	4.95
189878	Sunon	KD2408PTB1-6A	24 VDC	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	36.5	12"	9.95	8.95	7.95	6.95
191628	Rotron Comair [7]	WT24B6X	24 VDC	3.15 x 3.15 x 1.25	1.5	Ball	190	4.6	—	51.4	21"	19.95	17.95	15.95	13.95
136792	Innovative	BP922524M	24 VDC	3.63 x 3.63 x 1.00	31	Ball	140	3.3	UL/CSA/TUV	31	12"	5.95	5.35	4.79	4.29
189886	NMB	3610KL-05W-B30	24 VDC	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	6.95	6.25	5.59	4.95
174094	Jamicon	JF0925S2H	24 VDC	3.63 x 3.63 x 1.00	52	Sleeve	190	4.6	UL/CSA	37	10"	6.95	6.25	4.49	3.49
117049	NMB	4710PL-05W-B20-100	24 VDC	4.68 x 4.68 x 1.00	53	Ball	90	2.1	—	29	12"	11.95	10.95	9.95	8.95
175281	Globe Motors	D47B10A05W2000	24 VDC	4.68 x 4.68 x 1.00	70	Ball	160	2.9	UL/CSA/TUV/CE	34	12"	11.95	9.95	8.95	7.95
100968	NMB (Boxer)	4715KL-05W-B10	24 VDC	4.68 x 4.68 x 1.50	83	Ball	200	3.6	—	35	12"	10.95	9.95	6.95	5.95
153411	Sunon	KD2412PMB2-6A	24 VDC	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	14.95	13.95	12.95	11.95
175476	NMB	6820PL-05W-B10	24 VDC	6.75 x 6.75 x 2.00	170	Ball	500	9.1	UL/CSA/TUV/CE	42	12.5"	12.95	11.95	10.95	9.95
166730	Mechatronics	A9225H48B	48 VDC	3.63 x 3.63 x 1.00	51	Ball	100	4.8	UL/CSA/TUV	36	13"	3.49	2.95	2.65	2.39

[3] **185826/189608/189616:** Speed sensor [4] **172460/174967:** Locked rotor alarm [5] **174941:** Locked rotor protected [6] **172478:** Rotor locking input
[7] **191628:** Blower † Temp Control: 151335/163601/163619 (35°C); 166959 (40˚C); 162739 (50˚C, 3 leads)

DC Brushless Fans continued from page 78

AC Tube Axial Fans

Part Number Color Code
New Sale Refurbished Closeout



111915

109874

Call for additional OEM PRICING – we carry major manufacturers.

- Rating 115 & 220VAC @ 50/60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10 to 226 CFM

106585

102891

Part Number	Mfg. (may vary)	Product Number	Voltage	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing Ball/Sleeve	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
162704	Globe Motors	A-24-B12A-15W3-000	115 VAC	2.36 x 2.36 x 1.20	10	Ball	38	4.0	UL/CSA/CE	29	12" leads	$7.95	$6.95	$6.25	$5.59
146077	Common Wealth	FP108AX-S1-B	115 VAC	3.15 x 3.15 x 1.00	23	Ball	140	14.0	UL/CE	29	12" leads	12.95	11.95	10.95	9.95
75408	Fulltech	UF80B12SWH	115 VAC	3.15 x 3.15 x 1.00	24	Sleeve	140	14.0	UL/CSA/TUV/CE	35	12" leads	11.95	10.95	9.95	8.95
111915	Fulltech	UF80A12SWL	115 VAC	3.15 x 3.15 x 1.50	25	Sleeve	110	12.0	UL/CSA/TUV/CE	32	12" leads	11.95	10.95	9.95	8.95
16977	Fulltech	UF80A12BWL	115 VAC	3.15 x 3.15 x 1.50	25	Ball	110	11.0	UL/CSA/TUV/CE	32	12" leads	12.95	11.95	10.95	9.95
16969	Fulltech	UF80A12BTL	115 VAC	3.15 x 3.15 x 1.50	25	Ball	110	12.0	UL/CSA/TUV/CE	32	terminals	13.95	12.95	11.95	10.95
102904	Fulltech	UF80A12BWH	115 VAC	3.15 x 3.15 x 1.50	29	Ball	120	12.0	UL/CSA/TUV/CE	36	12" leads	13.95	12.95	11.95	10.95
191564	Nidec	TA300AC-AC30477	115 VAC	3.15 x 3.15 x 1.50	32	Ball	104	9.0	UL/CSA/TUV	51	terminals	14.95	13.95	12.95	11.95
75432	Sunon	SF11592A-1092HSL	115 VAC	3.63 x 3.63 x 1.00	36	Sleeve	130	12.0	UL/CSA/TUV/CE	39	12" leads	13.95	12.95	11.95	10.95
75459	Sunon	SF11592A-1092HBT	115 VAC	3.63 x 3.63 x 1.00	37	Ball	110	12.0	UL/CSA/TUV/CE	40	terminals	14.95	13.95	12.95	11.95
124062	Sunon	SP101AT1122HBT	115 VAC	4.68 x 4.68 x 1.00	78	Ball	180	18.0	CSA/TUV/CE	46	terminals	14.95	13.95	12.95	11.95
118965	Fulltech	UF12A12BTL1	115 VAC	4.68 x 4.68 x 1.50	64	Ball	85	8.4	UL/CSA/TUV/CE	37	terminals	12.95	11.95	10.95	9.95
109874	Fulltech	UF12A12STL	115 VAC	4.68 x 4.68 x 1.50	81	Sleeve	150	15.0	UL/CSA/TUV/CE	38	terminals	10.95	9.95	8.95	7.95
111894	Common Wealth	FP108-1-S1/W	115 VAC	4.68 x 4.68 x 1.50	105	Sleeve	180	17.0	UL/CSA/CE	47	12" leads	11.95	10.95	9.95	8.95
106585	Common Wealth	FP108-1-S1/T	115 VAC	4.68 x 4.68 x 1.50	105	Sleeve	140	12.0	UL/CSA/CE	35	terminals	12.95	11.95	10.95	9.95
16934	Common Wealth	FP108-1-S1-B	115 VAC	4.68 x 4.68 x 1.50	105	Ball	200	17.0	UL/CSA/TUV/CE	47	terminals	13.95	12.95	11.95	10.95
102883	Sunon	SP100A-1123XBT	115 VAC	4.68 x 4.68 x 1.50	117	Ball	240	20.0	UL/CSA/TUV/CE	50	terminals	14.95	13.95	12.95	11.95
108724	Fulltech	UF15AC12BTH	115 VAC	6.75 x 5.90 x 1.50	211	Ball	230	28.0	UL/CSA/TUV/CE	58	terminals	29.95	26.95	23.95	21.49
189683	Fulltech	UF15PC12BTH	115 VAC	6.75 x 5.90 x 2.00	226	Ball	250	30.0	CSA	58	terminals	29.95	26.95	23.95	21.49
174932	NMB	3115FS-23T-B10	220 VAC	3.15 x 3.15 x 1.50	25	Ball	30	4.6	UL/CSA/TUV/CE	25	terminals	9.95	8.95	7.95	6.95
100917	Sunon	SF23080A/2083HSL	220 VAC	3.15 x 3.15 x 1.50	30	Sleeve	60	13.5	UL/CSA/TUV/CE	35	12" leads	12.95	11.95	10.95	9.95
175003	NMB	4715MS-23W-B10	220 VAC	4.68 x 4.68 x 1.50	50	Ball	45	6.0	UL/TUV/CE	28	12" leads	9.95	8.95	7.95	6.95
102891	Sunon	DP200A-2123XBT	220 VAC	4.68 x 4.68 x 1.50	117	Ball	120	21.0	UL/CSA/TUV/CE	50	terminals	14.95	13.95	12.95	11.95

Fan Accessories and Heat Sink Fans

Fan Guards and Filters

Compatible with AC/DC Fans – pages 78, 79 & above

- All guards and filters fit all fans by matching the H" dimension. Example: P/N 75408 fan height is 3.15", 31923 metal guard is 3.15". They fit one another.

123502

163432

120037

185615

31923/123511

25734

138561/163459

25726

138579/192874/130104

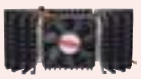
Part No.	Description	1	10	100	250
123502	1.60" metal (chrome) guard	$.63	$.49	$.42	$.39
163432	2.00" metal (chrome) guard	.65	.55	.43	.41
120037	2.36" metal (chrome) guard	.99	.85	.69	.59
185615	2.36" dual fan guard	.89	.75	.59	.55
31923	3.15" metal (chrome) guard	.79	.65	.52	.49
123511	3.63" metal (chrome) guard	.89	.75	.59	.55
25734	4.68" metal (chrome) guard	1.09	.89	.69	.65
138561	3.15" plastic filter w/ mesh	1.39	1.19	1.05	.95
163459	3.63" plastic filter w/ mesh	1.75	1.49	1.25	1.09
25726	4.68" plastic filter w/ mesh	1.95	1.75	1.49	1.25
138579	3.15" alum. washable filter	2.95	2.65	2.39	2.15
192874	3.63" alum. washable filter	3.25	2.95	2.65	2.39
130104	4.68" alum. washable filter	3.49	3.25	2.95	2.65

Straight and Right-Angle 24" Fan Plug Cords

- Cord type: SPT-1 (2) conductor black
- Volt. rating: 300V
- Temp.range: 60°C
- Fits all terminal fans

Part No.	Description	Length	1	10	100	250
28564	Straight cord	24"	$.89	$.75	$.69	$.65
104192	90° angle cord	24"	1.19	1.09	.99	.89

CPU Heat Sinks and Fans


174027

151298

196242

181278

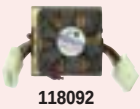
195784

196074

190545

180961

185607


118092

129234/129226

191636

174115

67660

- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans
- Easy installation – just snap it in

* 174115: 14" lead wires

Part No.	Description	Size (L" x W" x D")	Agency Approvals	1	10	50	100
174027	Heat sink w/ fan for slot 1	4.90 x 2.21 x 1.25	CE	$6.95	$6.25	$4.95	$4.49
151298	Heat sink w/ fan for slot 1	4.90 x 2.15 x 1.34	UL/CE/TUV	9.95	8.95	7.95	6.95
196242	Heat sink w/ fan for socket 7 (ATX)	2.03 x 2.03 x 1.00	—	9.95	8.95	7.95	6.95
181278	Heat sink w/ fan for socket 7 (ATX)	2.06 x 2.08 x 1.64	UL/CE	9.95	8.95	7.95	6.95
195784	Heat sink w/ fan for socket 7 (AT/ATX)	2.12 x 2.13 x 1.52	—	9.95	8.95	7.95	—
196074	Heat sink w/ fan for socket 7 (AT)	2.03 x 2.03 x 1.00	—	9.95	8.95	9.95	8.95
190545	Heat sink w/ fan for socket 370	2.32 x 2.34 x 1.00	—	17.95	15.95	14.49	12.95
180961	Heat sink for Pentium® Pro	3.16 x 2.48 x 1.03	—	10.95	9.95	—	—
185607	Heat sink w/ fan for Pentium® Pro	2.75 x 2.84 x 1.53	UL/CSA	14.95	13.49	11.95	10.75
118092	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 1.00	UL/CSA/CE/TUV	4.95	4.49	3.95	3.49
129226	Heat sink for 486 CPU – adhesive back	1.70 x 1.63 x 0.36	—	3.25	2.95	2.75	2.49
129234	Heat sink for 486 CPU – adhesive back	1.70 x 1.64 x 0.66	—	3.95	3.55	3.19	2.79
191636	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV	4.95	4.49	3.75	3.75
174115*	Heat sink w/ fan for 486 CPU w/ snap	1.92 x 1.95 x 0.93	UL/CUL	3.95	3.55	2.95	2.65
67660	Heat sink w/ fan for 486 CPU w/ snap	1.92 x 1.95 x 0.93	UL/CSA/CE	5.95	5.35	4.79	4.29

Call for OEM pricing – we carry major manufacturers.

28 AWG Gray Flat Ribbon Cable

103481

- Ideal for use with insulation displacement DIP jumpers, card-edge connectors and socket connectors. See pages 52, 53, 155 & 156
- Single edge red stripe for pin 1 orientation
- Center spacing: 0.05" • 28 AWG (7 x 36)
- Insulation: polyvinyl chloride (PVC) • Voltage rating: 300V
- Temperature rating: -20°C to +80°C • Stranded copper wire
- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

Part No.	Product No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
135538	171-10	10	$1.49	$3.20	$10.00	$40.00
37671	171-16	16	1.75	4.00	12.50	57.00
37719	171-20	20	1.95	4.50	16.00	65.00
37760	171-25	25	3.25	7.00	20.00	90.00
37807	171-26	26	3.49	8.00	20.50	95.00
37840	171-34	34	4.25	9.25	27.00	95.00
37911	171-37	37	5.90	13.25	48.00	215.00
37920	171-40	40	4.95	11.75	32.00	145.00
37954	171-50	50	6.75	14.50	40.00	170.00
103481	171-60	60	8.95	17.75	42.00	200.00

28 AWG Multicolor Flat Ribbon Cable

105718

- Ideal for use with insulation displacement DIP jumpers, card-edge connectors, socket connectors and IDC connectors
- Standard 10-color repeat sequence
- Center spacing: 0.05"
- Temperature rating: -20°C to +80°C • Voltage rating: 300V
- Insulation: Polyvinyl chloride (PVC) • Stranded copper wire
- 28 AWG (7 x 36)
- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

Part No.	Product No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
112547	28RC10	10	$1.95	$4.50	$17.50	$70.00
105671	28RC16	16	3.25	7.25	24.00	100.00
105689	28RC20	20	3.95	9.00	30.00	125.00
105697	28RC25	25	4.95	10.35	30.50	128.00
105700	28RC34	34	6.50	14.50	42.00	185.00
105726	28RC40	40	7.95	16.65	54.40	228.00
105718	28RC50	50	9.95	23.00	73.00	325.00

22 AWG Solid Hook-up Wire

600 Volts

- 105°C • PVC insulation • Tinned copper
- Temperature range: -55°C to +105°C • MIL-W-16878D type B
- Passes UL VW-1 flame test • Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.)
- For use with breadboards such as the JE20 series, pg 90

Part No.	Product No.	Color	100 ft.	Part No.	Product No.	Color	1000 ft.
36767	122BE/C	Blue	$4.25	36775	122BE/K	Blue	$29.95
36791	122BK/C	Black	4.25	36804	122BK/K	Black	29.95
36821	122G/C	Green	4.25	36839	122G/K	Green	29.95
36855	122R/C	Red	4.25	36863	122R/K	Red	29.95
36880	122W/C	White	4.25	36898	122W/K	White	29.95
36919	122Y/C	Yellow	4.25	36927	122Y/K	Yellow	29.95

28 AWG Modular Telephone Cable

103430

- Color coded conductors • Flat modular cable
- PVC jacket • Gray • 7 x 43 stranded

Part No.	Product No.	Conductors	100 ft.	1000 ft.	10000 ft.
103430	MTC4	4	$3.30	$30.00	$250.00
103448	MTC6	6	7.00	40.00	350.00
103450	MTC8	8	10.00	60.00	500.00

24 AWG 300V 2-Conductor Stranded Power/Speaker Cable

- Operating voltage: 300V • Temperature rating: 20˚C to 60˚C
- Stranded copper wire (7 x 32) • Black wire with white polarity stripe

Part No.	Prod. No.	Color	Wt. (lbs.)	100 ft.	Part No.	Prod. No.	Color	Wt. (lbs.)	1000 ft.
100280	224BK/C	Black	0.8	$4.95	100298	224BK/K	Black	7.8	$39.95

Modular Network Cable – 100 MHz

24 AWG UTP Category 5

118130

- 100MHz • Color: gray • 8C • 4 twisted pairs
- Insulation: polyethylene • Nom. OD.: 189" • Nom. impedance: 100Ω
- **118130:** uses modular plug P/N 79281, pg 158
- **118113:** uses modular plug P/N 119343, pg 158
- **Prepackaged and priced in increments of 25' or 100'**

Part No.	Description	25 ft.	100 ft.	1000 ft.
118113	Solid	$4.00	$11.00	$90.00
118130	Stranded (7/32 AWG)	5.50	15.00	130.00

Modular Network Cable – 350 MHz

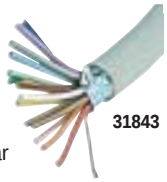
24AWG UTP Category 5 Enhanced

176233

- 350MHz • Color: gray • 8C • 4 twisted pair
- **Prepackaged and priced in increments of 25' or 100'**

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225	Solid (24 AWG)	$5.00	$14.00	$80.00
176233	Stranded (24 AWG)	6.00	18.00	150.00

24 AWG Multiconductor Shielded Computer Communication Cable


31843

- Stranded copper wire, multi-colored insulation
- Insulated with polyvinyl chloride (PVC)
- Voltage rating: 300V • Color: gray • Drain wire
- 24 AWG (7 x 32 AWG) • Shielded 100% w/ aluminum mylar
- **Prepackaged and priced in increments of 25' or 100'**

Part No.	Product No.	Conductors	Diameter	25 ft.	100 ft.	1000 ft.
31860	SC4	4	0.20"	$4.75	$14.00	$110.00
31878	SC9	9	0.23"	9.75	25.00	190.00
31843	SC15	15	0.28"	13.75	40.00	290.00
31851	SC25	25	0.37"	17.25	49.00	300.00

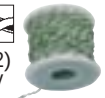
18/20/22 AWG Stranded Hook-up Wire

300 Volts

- 80°C • PVC insulation • CSA: TR-64 • UL style: 1007
- Temperature range: -40°C to +80°C • **Sold in 100' rolls**

Part No.	Product No.	AWG	Strands (No. x AWG)	Color	Wt. (lbs.)	1	10
126084	223SBK/C	22	7 x 30	Black	0.4	$2.95	$2.49
126033	223SR/C	22	7 x 30	Red	0.4	2.95	2.49
126076	223SW/C	22	7 x 30	White	0.4	2.95	2.49
125840	203SBK/C	20	10 x 30	Black	0.6	3.49	2.95
125794	203SR/C	20	10 x 30	Red	0.5	3.49	2.95
125831	203SW/C	20	10 x 30	White	0.5	3.49	2.65
125786	183SBK/C	18	16 x 30	Black	0.8	3.95	3.49
125735	183SR/C	18	16 x 30	Red	0.8	3.95	3.49
125751	183SW/C	18	16 x 30	White	0.8	3.95	3.25

24 AWG Twisted Pair Cable



- PVC insulation • Use for hook up wire • Stranded tinned wire (7 x 32)
- Reduced EMI • Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) • 80C° • 300 V

Part No.	Product No.	Color	100 ft.	Part No.	Product No.	Color	1000 ft.
105911	224GW/C	Green/white	$4.95	105806	224GW/K	Green/white	$39.95
173147	224RW/C	Red/white	4.95	173155	224RW/K	Red/white	39.95
173163	224BW/C	Black/white	4.95	173171	224BW/K	Black/white	39.95

30 AWG Kynar™ Wire Wrap Wire

22541

- Assorted color coded insulation • Used for prototyping
- Color coded Kynar™ (Polyvindene Fluoride) insulation
- Silver plated copper (solid conductor) • UL 1423
- Temperature: -40°C to +125°C • See pg 50 for sockets
- Wire wrap tools, pg 94 • Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	1000 ft.
22541	Blue	0.1	$3.95	22550	Blue	0.6	$29.95
22576	Black	0.1	3.95	22584	Black	0.6	29.95
22630	Red	0.1	3.95	22648	Red	0.6	29.95
22664	White	0.1	3.95	22672	White	0.6	27.95
22605	Green	0.1	3.95	22613	Green	0.6	27.95
22699	Yellow	0.1	3.95	22701	Yellow	0.6	29.95

Part Number Color Code
New Sale Refurbished Closeout

Call for OEM pricing – we carry major manufacturers.

Cable Clamps

- Tie mount and screw tab cable clamps
- Material: UL approved nylon 66, 94V-2
- ***Sold in increments of 10, 100 or 1000***

182941 182300
182318

182334

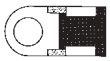
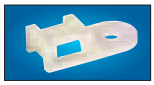
134754

173753

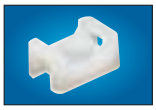
Part No.	Product No.	Description	10	100	1000
182941	0505HC-101S	Tie mount cable .75"D; 4-way self adhesive	$.07	$.06	$.05
182300	0510HC-2	Tie mount cable .5"D; #6 screw	.17	.13	.09
182318	0519ATC-17	Tie mount cable .7"D ADJ; 2-way #6 screw	.59	.42	.29
182376	0519ATC-22	Tie mount cable .9"D ADJ; 2-way #6 screw	.35	.30	.27
182334	0520FC-1	Tie mount cable .1"D; self adhesive	.17	.13	.08
182342	0520FC-2	Tie mount cable .2"D; self adhesive	.19	.13	.08
173711	UC0	Cable clamp for 1/8" cable	.08	.03	.02
173729	UC0.5	Cable clamp for 3/16" cable	.035	.032	.025
173737	UC1	Cable clamp for 1/4" cable	.14	.10	.08
173745	UC1.5	Cable clamp for 5/16" cable	.08	.03	.02
134754	BO375	Cable clamp for 3/8" cable	.09	.035	.025
173753	UC3	Cable clamp for 1/2" cable	.09	.04	.02

Nylon Cable Tie Mounts

- Screw tab & cradle mount adhesive
- ***Sold in increments of 10, 100 or 1000***

70594  

71407
71394
71386


173761

Part No.	Description	10	100	1000
70594	0.8"L x 0.4"W screw 4-way cable tie, used w/ 0.2"W max	$.15	$.10	$.06
171213	0.5" square adhesive 4-way cable tie, used w/ 0.1"W max	.15	.10	.06
71407	0.9" square adhesive 4-way cable tie, used w/ 0.1"W max	.17	.13	.09
71394	1.1" square adhesive 4-way cable tie, used w/ 0.2"W max	.19	.15	.11
71386	1.1" square adhesive 2-way cable tie, used w/ 0.4"W max	.19	.17	.15
173761	0.6"L x 0.4"W cable tie, saddle type	.15	.10	.06

Stand-Off Twist Fastener

- Material: UL approved natural nylon 66, 94V2
- For directing and gathering cables at low cost
- Effective cable securing method
- ***Sold in increments of 10, 100 or 1000***

SALE

Part No.	Product No.	Description	10	100	1000
182641	1205ST-1247	Twist tie .5"W	$.06	$.05	$.04

Cable Tie Assorted Kits

195207: 50 pcs. assorted colors; 25 pcs. 8" and 25 pcs. 11"
195830: 25 pcs. each 3¾", 4¾", and 7½" clear
195194: 75 pcs. assorted colors;
25 pcs. each 3¾" white, 4¾" red and 7½" yellow
195215: 100 pc. wire management assortment;
30 pcs. 3" cable ties, 20 pcs. 4" cable ties,
9 pcs. each 14-16AWG and 10-12AWG wire connectors,
10 pcs. 14-18AWG wire connectors; 6 pcs. 3/16",
8 pcs. each ¼" and ⅜" cable clamps

195207

195830

195194

195215

NEW

Part No.	Product No.	Description	1	10	50
195207	VP-50-811C	Cable tie assortment	$1.95	$1.75	$1.58
195830	BP-75 CLEAR	Cable tie assortment	1.95	1.75	1.58
195194	BP-75	Cable tie assortment	1.95	1.75	1.58
195215	BP-100	Cable ties, clamps, and wire connectors assortment	1.95	1.75	1.58

Wire Connectors

- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application • Twist on type
- * Requires crimping tool (P/N 72995 pg 97)
- ***Sold in increments of 10, 100 or 1000***

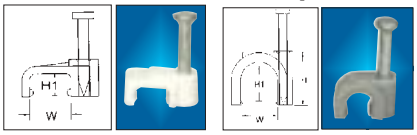
182449

182511

140716

Part No.	Description	Material	Color	10	100	1000
182449	Crimp16-14 AWG (UL/CSA)*	Nylon 66, 94-2	Natural	$.06	$.055	$.05
182502	Wire-nut 16 AWG	PVC w/ metal spring	Gray	.05	.045	.04
182511	Wire-nut 16 AWG	PVC w/ metal spring	Blue	.04	.035	.03
182529	Wire-nut 16 AWG	PVC w/ metal spring	Orange	.05	.045	.04
182537	Wire-nut 14 AWG	PVC w/ metal spring	Yellow	.09	.08	.07
182545	Wire-nut 12 AWG	PVC w/ metal spring	Red	.06	.05	.04
140724	Wire IDC 18-14 AWG	PE - metal inside	Blue	.12	.08	.06
140716	Wire IDC 22-18 AWG	PE - metal inside	Red	.12	.08	.06

Nail-In Cable Clips


190810 190861

- Material: impact resistant PE • With nails inserted
- ***Sold in increments of 100 or 1000***

For telephone cords; white

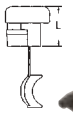
Part No.	Product No.	W x H x H1 (mm)	100	1000
190810	NF0.7	5.5 x 5.5 x 3.1	$.15	$.135
190828	NF1.2	6.2 x 5.4 x 3.8	.15	.135
190836	NF1.6	8.0 x 8.0 x 5.0	.15	.135
190844	NF2.0	8.5 x 8.0 x 5.2	.16	.145
190852	NF2.8	15 x 12.8 x 8.7	.19	.17

For general round cables; gray

Part No.	Product No.	W x H x H1 (mm)	100	1000
190861	NC0.35N	3.5 x 5.9 x 3.7	$.16	$.145
190879	NC0.5N	5.0 x 7.6 x 5.3	.16	.145
190887	NC1N	6.0 x 9.0 x 6.6	.17	.155
190895	NC2N	8 x 11.5 x 8.6	.18	.16
190908	NC3N	10 x 13.4 x 10.5	.19	.17

Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life
- ***10 piece minimum***



182414

SALE
182369

Flat Type Cable

Part No.	Cable Type	Lgth (mm)	10	100	1000
182385	SPT3	10.3	$.19	$.17	$.15
182393	SPT3	15.2	.15	.13	.12
182406	SPT2	10.3	.12	.11	.09
182414	SPT2	10.3	.24	.22	.19
182422	SPT1/SPT2	10.3	.29	.26	.23

Round Type Cable

Part No.	Cable Type	Lgth (mm)	10	100	1000
182351	SVI/SVT	11.0	.19	$.17	$.15
182369	SJ/SJT; 16 AWG	14.8	.27	.24	.22
182377	SJC; 18 AWG	14.8	.27	.24	.22

Bushing Assembly Tool

- For use with strain relief bushings, above

Part No.	Description	1	10	100
73470	Bushing tool	$29.95	$26.95	$23.95

Black Electrical PVC Tape (30')

- Cold and weather resistant
- UL approved • Length: 30'
- Size: 7 mil thick x .75"W x 30'L

Part No.	Description	1	10	100
150527	Electrical tape	$.69	$.61	$.55

Braided Nylon Lacing Tape

- Waxed finish • Braided
- Excellent knot retention
- Meets specification: MIL-T-43435B
- Size: .085"W x 500 yards long

174369

Part No.	Description	1	10
174369	Lacing Tape (natural)	$16.99	$15.29
189798	Lacing Tape (black)	16.99	15.29

Call for OEM pricing – we carry major manufacturers.

Nylon Cable Ties

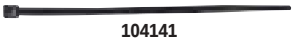
Standard

70560

- Cable ties made from UL approved nylon 66
- Temperature range: -40˚C to +85˚C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676* – black)
- ***Sold in increments of 100s or 1000s***

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
70560	18	3.1 x 0.10	$.025	$.015
126543	18	4.0 x 0.10	.025	.02
182676*	18	4.75 x 0.13	.06	.04
182650	18	5.5 x 0.13	.04	.03
139150	18	8.0 x 0.10	.03	.02
182668	18	8.0 x 0.13	.06	.04
182684	18	8.0 x 0.18	.09	.07
70906	40	5.8 x 0.10	.03	.02
190756	40	10.0 x 0.14	.07	.06
190772	40	11.0 x 0.19	.09	.075
190764	40	13.0 x 0.14	.08	.065

Weather Resistant



104141

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use
- Color: black
- ***Sold in increments of 100s or 1000s***

UV Resistant

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
139125	18	3.0 x 0.90	$.025	$.015
104141	18	4.0 x 0.10	.025	.015
104133	40	5.8 x 0.10	.03	.02
190781	40	8.0 x 0.13	.05	.04
190799	40	10.0 x 0.14	.075	.065
190801	40	13.0 x 0.14	.09	.07
139141	50	4.8 x 0.18	.04	.03

Cable Tie Assortments

- Tensile strength: 18-50 lbs.

145701:
1000 pcs. (4"L); 10 colors

150412:
500 pcs. (4"L); 300 pcs. (8"L); 50 pcs. (11"L), 5 colors

145701

145701 (closeup)

Part No.	Weight (lbs.)	1	1050
145701	0.7	$9.49	$8.49	$5.95
150412	1.7	13.95	11.49	9.95

AC Cord Cable Tie

- Reusable • Length: 6"
- Color: black
- **100 piece minimum**

Part No.	Description	100	1000
183185	Cable tie	$.09	$.08

Cable Tie Tools

182297

182271

- 2.5 - 5mm width (of cable) • Tension adjustable
- Twist to cut surplus tie end • Spring return action

Part No.	Description	1	10	100
182297	Cable tie tool (metal)	$19.95	$17.95	$15.95
182271	Cable tie tool (plastic)	49.95	45.95	39.95

Heat Gun

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts
- UL listed • Weight: 1.8 lbs. • Size: 9.3"L x 7.0"W

Part No.	Description	1	10	25
76865	Heat gun	$39.95	$35.95	$31.95

Weller® 250-Watt Industrial Heat Gun

- Approximately 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- Long-life heater and fan components
- 120VAC @ 60Hz • ESD safe
- 3-wire grounded plug; 6' cord
- Weight: 1.2 lbs.

Part No.	Product No.	Description	1	10
191943	6966C	Heat gun	$126.95	$114.25

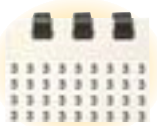
WAHL® Portable Heat Gun

- Portable and flameless heat
- Temperatures up 1200˚F (650˚C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8"L x 0.9"W • One-year warranty

Part No.	Description	1	10
150691	Portable flameless heat gun	$27.95	$24.95

Self Adhesive Wire Marker

- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used extensively for cable diameter after or before terminal attachment



Part No.	Product No.	1	10
182262	0215WMB-1	$7.99	$6.99

3M Tape Wire Markers

- For marking wires with numerical sequence
- Self adhesive tapes numbered 0-9
- Size: (tape) 96"L x 0.25"W

Part No.	Description	1	10
159231	Numerical tape dispenser	$32.95	$29.95

We'll Send It Today
99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Heat Shrink Tubing

- 2:1 uniform shrink ratio
- Color: black
- Temperature range: -45˚C to +125˚C
- Shrink temp.: 175˚C
- **Length 39" (1 meter), sold as 1 increment**

72063

PVC Heat Shrink Flat Film

Part No.	Flat	Unshrunk Cir. Dia.	Shrunk Cir. Dia.	1	10	100
70631	5/16"	1/4"	1/8"	$1.49	$1.34	$1.19
70623	1/2"	5/16"	3/16"	1.49	1.34	1.19
70666	13/16"	9/16"	1/4"	1.49	1.34	1.19

Polyolefin Heat Shrink Tubing

- Dielectric strength: 1300V • Flexible
- Shrink temperature: 121°C • Flame retardant

Part No.	Before	After (Dia.)	1	10	100
71327	1/16"	1/32"	$.59	$.49	$.39
71870	3/32"	3/64"	.65	.55	.39
71280	1/8"	1/16"	.75	.59	.49
72063	1/4"	1/8"	.99	.79	.65

PVC Heat Shrink Tubing

- 2:1 uniform shrink ratio
- Color: black
- Shrink temp: 125˚C
- Sold in 10' and 100' increments
- UL/CSA approved

182748

182772

Part No.	Dia. before (mm)	10	100
184721	.12" (3)	$1.19	$10.49
182730	.16" (4)	1.39	12.49
182748	.20" (5)	1.45	12.95
182756	.24" (6)	1.49	13.49
182764	.31" (8)	1.79	15.95
182772	.43" (11)	2.49	22.49
182781	.59" (15)	2.95	21.49

Cable Sleeve

Clean Cut Expandable Sleeving

- Flame resistant
- Applications: protecting wires, cables and hoses
- Operating temp.: -70˚C to 125˚C
- ***Sold in spools of 25'***

162157

Part No.	Product No.	Actual/Expanded Dia.	1	10
162157	CCPT2X	.125"/.440"	$14.95	$11.95
162165	CCPT3X	.250"/.750"	17.95	14.49

Nylon Cable ID Ties and Tabs

71061

135175

71061: Clear ID tab (0.98" x 0.31")
182692: White ID tab (18 lb. tensile strength)
135175: Nylon cable tie ID marker

- ***Sold in increments of 10, 100 or 1000***

Part No.	Size	10	100	1000
71061	4.0"L x 0.1"W	$.14	$.08	$.06
182692	8.0"L x .10"W	.14	.08	.06
135175	2.0"L x 0.8"W x .02"T	.19	.15	.10

Cable Markers

- UL approved natural nylon
- ***10 piece minimum***

Part No.	Size	10	100	1000
182705	1.5"L x .75"W	$.10	$.09	$.08
182713	2.5"L x 1.76"W	.13	.12	.10

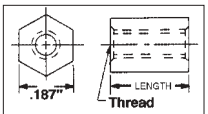
Aluminum & Brass Threaded Standoffs

Hex
.187"/.250" Female

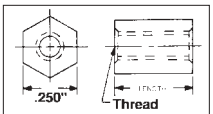
† Finish: Iridite (clear)[1] per MIL-C-5541-D; bright tin plate[2]; stainless steel[3]

✻ Prepackaged: order in increments of 10, 100 or 1000

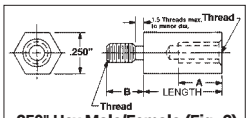
Hex
.250" Male/Female



.187" Hex Female (Fig. 1)



.250" Hex Female (Fig. 2)



.250" Hex Male/Female (Fig. 3)

SALE

.187" Hex Female

4-40 Thread (Fig. 1) .187" Hex

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
175636	Brass[2]	.187"	✻	$.15	$.13	$.11
133612	Alum[1]	.250"	✻	.17	.14	.10
133639	Alum[1]	.500"	✻	.19	.15	.12
139791	Alum[1]	.562"	✻	.05	.04	.03
133647	Alum[1]	.625"	✻	.35	.22	.14
133655	Alum[1]	.750"	✻	.35	.29	.22
139184	Alum[1]	1.000"	.35	.29	.22	.17

.250" Hex Female

4-40 Thread (Fig. 2) .250" Hex

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
139192	Alum[1]	.250"	✻	$.15	$.12	$.09
77500	Alum[1]	.375"	✻	.17	.14	.11
134762	Alum[1]	.437"	✻	.18	.16	.14
108370	Alum[1]	.500"	✻	.22	.17	.14
77518	Alum[1]	.625"	✻	.29	.25	.19
133604	Alum[1]	.750"	✻	.29	.25	.19
139205	Alum[1]	1.000"	.35	.29	.25	.19

.250" Hex Female

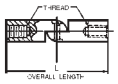
6-32 Thread (Fig. 2) .250" Hex

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
77534	Alum[1]	.250"	✻	$.19	$.15	$.12
133591	Alum[1]	.375"	✻	.19	.15	.12
77542	Alum[1]	.500"	✻	.22	.17	.12
77551	Alum[1]	.625"	✻	.25	.17	.10
77569	Alum[1]	.750"	✻	.25	.19	.15
77577	Alum[1]	1.000"	.35	.29	.25	.17
143407	Alum[1]	1.500"	.49	.39	.32	.27
143440	Alum[1]	1.750"	.49	.39	.32	.27

.250" Round Hinged

6-32 Thread (both ends)

Female/Female

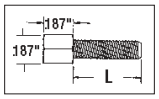


SALE

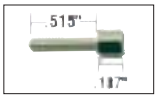
Part Number	Metal†	Overall Length	Pricing 1	10	100
143520	Brass[2]	.750"	$.19	$.17	$.15

.187 Hex Male/Female

4-40 x .187" Jack Screws and Hex Nut



169931/102816/172603



108986

102795

Part No.	Description (Brass[3])	1	10	100	1000
169931	.275"L jack screws	✻	$.15	$.12	$.09
172603	.315"L jack screws	✻	.14	.10	.07
102816	.435"L jack screws	✻	.45	.39	.36
108986	.515"L jack screws	✻	.45	.39	.36
175636	.187"L hex nuts	✻	.15	.13	.11
102795	.240"L hex nuts	✻	.17	.12	.08

.250" Hex Male/Female

4-40 Thread (Fig. 3) (Thread A: 0.250"; B: 0.187")

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
77585	Alum[1]	.250"	✻	$.25	$.22	$.19
77593	Alum[1]	.375"	✻	.25	.19	.15
111755	Alum[1]	.500"	✻	.32	.25	.17
175628	Steel[3]	.580"	✻	.12	.09	.07
139213	Alum[1]	.625"	✻	.29	.25	.19
139221	Alum[1]	.750"	✻	.29	.26	.23
139230	Alum[1]	1.000"	.39	.32	.25	.19
128565	Alum[1]	1.234"	.45	.39	.29	.25
166545	Alum[1]	1.500"	.69	.62	.55	.49

.250" Hex Male/Female

6-32 Thread (Fig. 3) (Thread A: 0.375"; B: 0.250")

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
133541	Alum[1]	.250"	✻	$.25	$.19	$.15
133567	Alum[1]	.375"	✻	.25	.19	.15
77606	Alum[1]	.500"	✻	.27	.22	.17
77622	Alum[1]	.750"	✻	.27	.22	.17
77649	Alum[1]	1.000"	✻	.29	.25	.19

.250" Hex Male/Female

SALE

8-32 Thread (Fig. 3) (Thread A: 0.437"; B: .375")

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
143511	Alum[1]	.500"	✻	$.19	$.17	$.15

SAE Hardware

- Zinc-plated steel

Prepackaged: please order in increments of 100 or 1000

Slotted Pan Head Machine Screws					
Part Number	Screw Size	Thread	Length (inches)	100 piece minimum 100	1000
38172	2-56	Std	.25	$.036	$.024
40951	4-40	Std	.25	.016	.012
40969	4-40	Std	.375	.016	.012
106809	4-40	Std	.50	.016	.012
106542	6-32	Std	.25	.02	.013
42446	6-32	Std	.375	.024	.016
42438	6-32	Std	.50	.03	.018
106817	8-32	Std	.375	.05	.035
106796	8-32	Std	.50	.04	.024

Hex Nuts					
38164	2-56	Std	.183	$.03	$.018
40942	4-40	Std	.243	.016	.012
42420	6-32	Std	.306	.02	.012
51553	8-32	Std	.334	.03	.018

Flat Washers				
106825	4	.281	$.024	$.016
106833	6	.373	.035	.018
106841	8	.377	.04	.025

Internal Tooth Lock Washers				
106850	4	.258	$.015	$.012
106868	6	.277	.015	.012
106876	8	.323	.017	.015

Split Lock Washers				
106788	2	.161	$.035	$.022
40977	4	.205	.025	.018
42462	6	.240	.028	.02
51609	8	.279	.04	.025

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Instrumentation Knobs

(1/4" Shaft Diameters)

102787

104176

136240/138392

SALE

- Fits 0.25" shafts

102787/104176:
- Brass insert and set screw for strength and durability
- Compatible with all rotary switches

136240: • Used with 1/2 watt and 2 watt linear taper potentiometers, pg 25 & 26

138392: • Brass insert, dual set screws
- Black knob with inset chrome top

Part No.	Product No.	Size	1	10	100
102787	KN141	1.25"L x .54"H	$.59	$.49	$.39
104176	KN143	.75"D x .49"H	.69	.59	.49
136240	KN145	.54"D x .52"H	.65	.55	.49
138392	PKG90B	.85"D x .56"H	.89	.64	.49

Aluminum Instrumentation Knobs

(1/8" and 1/4" Shaft Diameters)

Includes: Set screw for secure attachment

138384: • Coarse surface for sensitive control

162481 Fig. 1

138384 Fig. 2

162499 Fig. 3

138481 Fig. 4

Part No.	Product No.	Figure	Description	Shaft Dia. (in.)	Size (in.) Dia.	Height	Pricing 1	10	100
162481	K5-1/4S	1	Silver position pointer	.250	.50	.56	$.99	$.89	$.79
138384	KD500G	2	Silver position pointer	.125	.50	.63	1.25	1.09	.89
162499	K5-1/4B	3	White position pointer	.250	.50	.56	1.39	1.25	.89
138481	KN031	4	Black position pointer	.250	.61	.65	1.25	1.09	.89
138501	KN032	4	Black position pointer	.250	.87	.75	1.49	1.25	1.09
138510	KN033	4	Black position pointer	.250	1.18	.87	2.49	2.29	1.95

PCB Standoff Mounting Hardware

28337 129251 148056 156849

- Snap "on" • Nylon

28337: 1.2"L x 0.6"W for 0.2" holes
129251: 0.9"L x 0.4"Dia. for 0.2"/0.3" holes
148056: 0.8"L x 0.5"W for 0.1"/0.2" holes
156849: 0.5"L x 0.35"Dia. for 0.187" holes
156831: 0.68"L x 0.32"Dia for 0.140" holes

156831

✻ **Please order in increments of 10, 100 or 1000**

Part No.	Product No.	1	10	100	1000
28337	PCST	✻	$.15	$.07	$.04
129251	PCST2	✻	.15	.11	.07
148056	PCST3	✻	.09	.06	.03
156849	KCS5	✻	.09	.06	.04
156831	KCS10	✻	.12	.08	.05

Snap Rivet Set

- Rivet post pressure expands legs for fast and permanent fastening
- Size: (rivet) 0.3"L; (spreader): 0.25" x 0.117" Dia.

Rivet Spreader

✻ **Please order in increments of 10, 100 or 1000**

Part No.	Description	10	100	1000
157374	Snap rivet set ..... ✻	$.05	$.04	$.03

Wall Transformer Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Material: noryl
- Color: black
- Size: **P/N 115051 –** 3.35"H x 2.68"W x 2.22"D
  P/N 115043 – 3.34"H x 2.70"W x 2.26"D

115051

Part No.	Style	1	10	100
115051	Non-vented	$2.25	$1.95	$1.69
115043	Vented	2.25	1.95	1.69

Plastic IC Storage Tubes and Rubber Rail Stops

29516: Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. Length: 23.75"
29524: Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. Length: 20"
29583: Rubber stops used to plug plastic rail ends

29524 29583

✻ **Prepackaged: please order in increments of 10 or 100**

Part No.	Prod. No.	Description	1	10	100
29516	RIC20	Thin rail	$.49	$.39	$.29
29524	RIC220	Wide rail	.49	.33	.24
29583	RRS	Rubber stop ..... ✻	.06	.05	

Plastic Fliptop Box

Double-Sided Box

- Unique double-sided design allows box to be opened from both top and bottom
- Size: 6.5"L x 4.0"W x 1.5"H

Part No.	Description	1	10	100
148865	Double sided box	$2.59	$2.29	$1.95

SMD Plastic Fliptop Case

128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- Fliptop openings on each bin
- Color: gray
- Padded cover locks bins closed
- Perfect match to store P/N 156881 SMD resistor assortment, pg 23
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs.

Includes: Labels for each bin

Part No.	Description	1	10
164267	SMD fliptop case	$44.95	$39.95

Vented ABS Table Top Enclosure

- 2-piece screw-together housing
- Strain reliefs for AC/DC power entry and sensor/control cable
- Vents and four feet allow air circulation
- Size: 5.0"L x 3.5"W x 2.7"H

Includes: 2-piece ABS plastic enclosure, 2 cable strain reliefs, 4 housing screws, 3 internal mounting holes (0.07" dia.) for project board and transformer well

Part No.	Description	1	10	100
151159	Table top enclosure..	$3.25	$2.91	$2.61

External Threaded Handle

- 90° free fall
- Black anodized aluminum
- Size: 0.25" Dia. x 3.0"L x 1.46"H

Requires: Two 1/4" – 28 nuts

Part No.	Description	1	10	100
180638	Threaded handle	$.13	$.12	$.11

Plastic Jar

- Ideal for storing small items such as nuts, bolts, screws, ICs, sockets, etc.
- Clear plastic jar with white lid
- Size: 2.3"Dia. x 2.4"H

Part No.	Description	1	10	100	1000
179952	Plastic jar	$.35	$.29	$.26	$.23

3M Adhesive Rubber Feet

These are perfect for project boxes, providing a non-slip, non-scratch surface.

Fig. 1 Fig. 2 Fig. 3 Fig. 4 126981 119618

Part No.	Product No.	Type	Fig.	Pack	Dimensions (W" x H")	1	10	50
119618	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	$.99	$.89	$.79
142658	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	5.95	5.35	4.79
142771	SJ5008BLKC	Black tapered square	2	100	.50 x .12	5.95	5.35	4.79
142682	SJ5018BLKC	Black tapered square	3	100	.50 x .23	8.95	7.95	6.95
126981	SJ5023BLK4	Black tapered square	4	4	.81 x .30	1.95	1.75	1.59
142666	SJ5023BLKC	Black tapered square	4	100	.81 x .30	14.95	12.95	11.49

Component Cabinet

81701 Drawer (85454) Divider (85446)

- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

✻ **Prepackaged: please order in increments of 10 or 100**

Part No.	Description	1	10	50
81701	Component cabinet	$15.95	$13.95	$12.49
85454	Drawer for cabinet	.59	.45	.36
85446	Divider for drawer ..... ✻		.19	.15

Plastic Fliptop Boxes

- Clear plastic box with a clear plastic lid and removable dividers

100255: Size: 8.4"L x 4.5"W x 1.4"H
- 18 compartments (1.4" x 1.5" each)

148902: Size: 10.2"L x 4.7"W x 1.6"H
- 12 compartments (1.7" x 2.3" each)

100255

Part No.	Description	1	10	100
100255	18 compartments.....	$2.25	$1.95	$1.75
148902	18 compartments.....	3.95	3.49	2.95

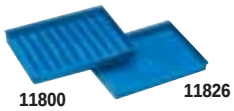
Bug Boxes

11375 11341

- Anti-static plastic
- Fits in bug cage (P/N 11332, below)
- **11341:** stores sixty 8-pin or thirty 16-pin DIPs
- **11375:** Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H

Part No.	Description	1	10	100
11341	30 compartments	$3.95	$3.49	$2.75
11375	3 compartments/6 vertical & 6 horizontal dividers.....	4.49	3.95	3.49

Bug Trays



11800 11826

- Fits in bug cage (P/N 11332, below)
- **11826 Open:** 1 compartment 4.6"L x 3.2"W x 0.4"H
- **11800 Divided:** 10 compartments 3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H

Part No.	Description	1	10	100
11826	Open bug tray	$3.45	$3.10	$2.79
11800	Divided bug tray	3.45	3.10	2.79

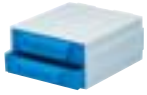
Bug Cage

- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Cage size: 5.0"L x 3.9"W x 5.1"H

Bug boxes not included

Part No.	Description	1	10	100
11332	Bug cage	$6.95	$5.95	$4.95

Stackable Drawers



- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white

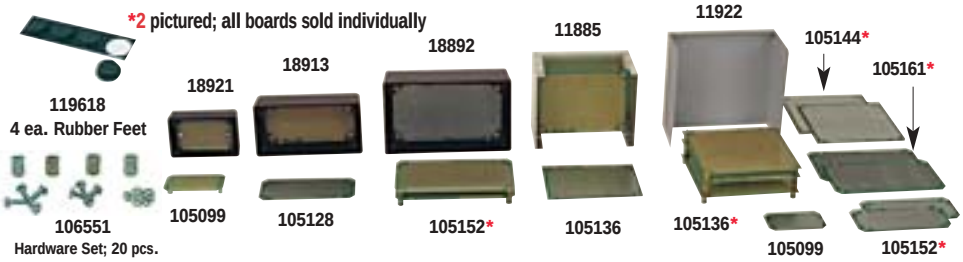
Part No.	Description	1	10	100
11906	Case/drawers	$3.49	$2.95	$2.49

Part Number Color Code
New Sale Refurbished Closeout

Prototype Builder Boards, Enclosures and Hardware

Call for additional OEM pricing.

These prototype builder boards are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom, right (P / N 106551). **Board description:** laminated glass epoxy 1 / 16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.



See page 84 for hardware and knobs See page 92 for more printed circuit board details

ABS Speedy Enclosures

18913

Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1	10	50	100
18921	H2855	3.1" x 2.0" x 0.9"	0.1	**$2.39**	**$2.15**	**$1.95**	**$1.74**
18913	H2853	4.9" x 2.5" x 1.5"	0.2	**2.49**	**2.24**	**1.99**	**1.79**
18892	H2851	6.0" x 3.5" x 1.9"	0.4	**3.15**	**2.75**	**2.49**	**2.25**
18905	H2852	7.5" x 4.3" x 2.3"	0.5	**4.29**	**3.69**	**3.29**	**2.69**

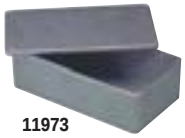
Printed Circuit Boards for Above Enclosures

105099

• Power/ground, perimeter bus with pad per hole (*except P/N 105099)
• Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105099*	2855PCB	2.7" x 1.6"	288	**$5.49**	**$4.95**	**$4.49**	**$3.95**
105128	2853PCB	4.4" x 2.0"	669	**7.95**	**6.95**	**6.25**	**5.59**
105152	2851PCB	5.5" x 3.1"	1450	**9.95**	**8.95**	**7.95**	**6.95**
105161	2852PCB	7.0" x 3.6"	2225	**13.95**	**12.49**	**11.25**	**9.95**

Die-Cast Aluminum Enclosures


11973

High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1	10	50	100
11957	B5002	3.9" x 2.0" x 1.0"	0.2	**$4.49**	**$3.95**	**$3.49**	**$3.19**
11965	B5004	4.7" x 2.4" x 1.6"	0.4	**7.49**	**6.49**	**5.59**	**4.95**
11973	B5006	7.5" x 4.3" x 2.4"	1.2	**10.49**	**9.49**	**8.49**	**7.49**

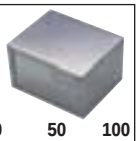
Printed Circuit Boards for Above Enclosures

105101

• Power/ground, perimeter bus with pad per hole
• Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105101	5002PCB	3.5" x 1.5"	365	**$6.95**	**$6.25**	**$5.59**	**$4.95**
105128	5004PCB	4.4" x 2.0"	669	**7.95**	**6.95**	**6.25**	**5.59**
105161	5006PCB	7.0" x 3.6"	2225	**13.95**	**12.49**	**11.25**	**9.95**

Aluminum Enclosures


11885

Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1	10	50	100
11869	B2300	4.0" x 2.0" x 2.8"	0.2	**$3.95**	**$3.49**	**$2.95**	**$2.49**
11885	B2320	5.0" x 4.0" x 3.0"	0.4	**5.95**	**4.95**	**4.49**	**3.95**
11893	B2335	7.0" x 6.2" x 4.6"	0.8	**7.95**	**6.95**	**6.25**	**5.59**

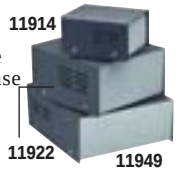
Printed Circuit Boards for Above Enclosures

105136

• Power/ground, perimeter bus w/ pad per hole
• Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110	2300PCB	3.4" x 2.4"	637	**$6.95**	**$6.25**	**$5.59**	**$4.95**
105136	2320PCB	4.5" x 3.3"	1266	**8.95**	**7.95**	**6.95**	**5.95**
105179	2335PCB	6.5" x 5.0"	2829	**13.95**	**12.49**	**11.25**	**9.95**

Metal Enclosures


11914
11922
11949

High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.

• Mounting screws and rubber feet included

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1	10	50	100
11914	B2741	4.0" x 3.3" x 2.2"	0.4	**$5.25**	**$4.49**	**$4.25**	**$3.75**
11922	B2743	5.9" x 5.3" x 3.0"	0.8	**6.95**	**6.25**	**5.59**	**4.95**
11949	B2744	7.3" x 6.3" x 2.8"	1.1	**7.95**	**6.95**	**6.25**	**5.59**

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110	2741PCB	3.4" x 2.4"	637	**$6.95**	**$6.25**	**$5.59**	**$4.95**
105144	2743PCB	4.7" x 4.5"	1869	**9.95**	**8.95**	**7.95**	**6.95**
105179	2744PCB	6.5" x 5.0"	2829	**13.95**	**12.49**	**11.25**	**9.95**

Heavy-Duty Instrument Cases

18868

Both cases split apart for ease of working. Four plastic feet molded on unit. P / N 18876 includes ventilation and speaker sound slots.

• Color: gray

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18868	H2505	7.9" x 6.3" x 2.5"	0.8	**$6.49**	**$5.95**	**$5.49**	**$4.49**
18876	H2507	10.0" x 7.5" x 3.1"	1.4	**8.49**	**7.49**	**6.49**	**5.49**

Printed Circuit Boards for Above Instrument Cases

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	Wt. (lbs.)	Holes	1	10	50	100
105179	2505PCB	6.5" x 5.0"	0.1	2829	**$13.95**	**$12.49**	**$11.25**	**$9.95**
105187	2507PCB	8.8" x 6.1"	0.2	4771	**29.95**	**26.95**	**23.95**	**21.95**

ABS Enclosures w/ Clear Tops

141840

Made of a gray ABS plastic body with a clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment and drilled holes for mounting.

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1	10	50	100
141831	203C1	4.6" x 3.2" x 1.8"	0.3	**$8.45**	**$7.55**	**$6.85**	**$5.75**
141840	203D1	6.3" x 3.2" x 1.8"	0.4	**8.95**	**7.95**	**6.95**	**5.95**
141858	203F1	7.0" x 5.5" x 2.5"	0.8	**9.95**	**8.95**	**7.95**	**6.95**

Mounting Hardware for PC Boards

• 4 spacers, 8 screws and 8 washers

Part No.	Description	1	10	50	100
106551	PC board mounting hardware	**$1.59**	**$1.39**	**$1.29**	**$1.19**

3M Adhesive Rubber Feet

*See page 85 for figures

Part No.	Product No.	Type	Fig.*	Pack	(W" x H")	1	10	50
119618	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	**$.99**	**$.89**	**$.79**
142658	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	**5.95**	**5.35**	**4.79**
142771	SJ5008BLKC	Black tapered square	2	100	.50 x .12	**5.95**	**5.35**	**4.79**
142682	SJ5018BLKC	Black tapered square	3	100	.50 x .23	**8.95**	**7.95**	**6.95**
126981	SJ5023BLK4	Black tapered square	4	4	.81 x .30	**1.95**	**1.75**	**1.59**
142666	SJ5023BLKC	Black tapered square	4	100	.81 x .30	**14.95**	**12.95**	**11.49**

Single Tone Piezo Buzzer

- Sound pressure: 95dB @ 3500Hz
- Top mounting via mounting nut or base mounting via screw holes
- Size: 1.0"H x 1.1"Dia.
- 1.35" mounting hole spacing
- 1.5-28VDC @ 20mA

Part No.	Description	1	10	100	1000
76021	4.5" lead wires	$3.49	$3.14	$2.82	$2.54

110VAC Piezo Buzzer

- Sound pressure level: 90dB
- Output tone: pulse
- Operating range: 60-150VAC
- Current drain: 20mA
- Fits 1.125" diameter opening
- 6" lead wires

Includes: Mounting nut

Part No.	Product No.	1	10	100
184743	FM-110A-903AL	$2.95	$2.75	$2.49

Electromechanical Buzzer

- Ideal for use in alarms & timers
- Sound pressure: 80dB
- Metal case • Size: 1.3"H x 2.0"Dia.
- Rated: 9VDC @ 220mA
- Fast-on terminals • Frequency: 500Hz

Part No.	Description	1	10	100	1000
105822	9V buzzer	$1.29	$1.16	$.94	$.65

Single and Dual Tone Buzzers

32601

- Turns on and off with low power transistor, SCR or IC
- Frequency: 2900 ±300Hz
- Sound pressure: 80dB @ 2900Hz
- Power: 6-28VDC @ 15mA
- Solid-state – no moving parts
- Panel mounts in 1.25" round hole
- Black plastic case – includes mounting nut
- Size: 1.4"H x 1.7"Dia. • Color: black

32601: single tone constant audio output
123537: dual tone constant audio output or pulsed audio output (terminal selected)

Part No.	Product No.	Output Tone	1	10	100
32601	S3240	Single	$4.25	$3.75	$2.95
123537	D3240	Dual	3.49	2.95	2.49

Mini-Buzzers

24871

- Frequency range: 400Hz ±15%
- Sound ratio: 75-80dB
- 1.1" mounting hole spacing
- Color: black
- Wire leads: 4.5"L
- Size: 1.3"L x 0.7"W x 0.6"H
- Voltage range: 6-9VDC (P/N 24871); 9-15VDC (P/N 140695)

Part No.	Input Voltage	1	10	100
24871	9VDC @ 30mA	$2.09	$1.88	$1.69
140695	12VDC @ 25mA	1.49	1.29	1.09

Check out our selection of kits on pages 173 - 179.

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

FIBOX NEMA 4X Plastic Enclosures

- Impact resistant
- Short term temperature range: -40˚C to 120˚C
- Continuous temperature range: -40˚C to 80˚C
- Color: gray
- Cover screw material: polyimide (PA)
- UL94-5V flammability rating

LG: low profile (1.0" body height)

Part Number	Product Number	Size (L" x W")	Height (in.) Body	Height (in.) Cover	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
191206	ULPC100/35LG	5.1 x 3.1	1.0	0.4	0.30	$17.95	$15.95	$14.49
191214	ULPC100/50LG	5.1 x 3.1	1.0	1.0	0.36	17.95	15.95	14.49
191185	ULPC125/35LG	5.1 x 5.1	1.0	0.4	0.46	21.49	19.49	17.49
191231	ULPC125/50LG	5.1 x 5.1	1.0	1.0	0.50	22.49	19.95	17.95
191661	ULPC150/35LG	7.1 x 5.1	1.0	0.4	0.60	26.95	23.95	21.95
191193	ULPC150/50LG	7.1 x 5.1	1.0	1.0	0.68	26.95	23.95	21.95

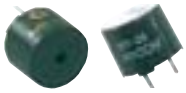
HG: high profile (2.0" body height)

Part Number	Product Number	Size (L" x W")	Height (in.) Body	Height (in.) Cover	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
191222	ULPC100/75HG	5.1 x 3.1	2.0	1.0	0.50	$17.95	$15.95	$14.49
191054	ULPC125/75HG	5.1 x 5.1	2.0	1.0	0.68	22.49	19.95	17.95
191679	ULPC150/75HG	7.1 x 5.1	2.0	1.0	0.88	26.95	23.95	21.95
191695	ULPC175/60HG	7.1 x 7.1	2.0	0.4	0.96	31.49	28.49	25.49
191708	ULPC175/75HG	7.1 x 7.1	2.0	1.0	1.04	31.49	27.95	25.49
191151	ULPC200/60HG	10.0 x 7.1	2.0	0.4	1.36	53.95	48.49	43.95
191716	ULPC200/75HG	10.0 x 7.1	2.0	1.0	1.34	53.95	48.49	43.95

Metal Back Panels

Part Number	Product Number	Description	Size (L" x W")	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
191724	MIV100	For ULPC100	3.9 x 1.9	0.10	$1.79	$1.49	$1.39
191169	MIV125	For ULPC125	3.9 x 3.9	0.24	1.95	1.79	1.69
191732	MIV150	For ULPC150	5.8 x 3.9	0.34	2.19	1.95	1.79
191741	MIV175	For ULPC175	5.8 x 5.8	0.54	2.69	2.39	2.19
191177	MIV200	For ULPC200	8.8 x 5.8	0.80	3.49	3.19	2.89

Single Tone Magnetic Buzzers



138739 106500

- Applications: counters, monitors, scanners, computers, peripheral equipment, alarms & smoke detectors
- Applied voltage: 1/2 duty, square wave • Long life
- Low power consumption • High sound level and low input voltage

Part No.	Frequency (Hz @ dB)	Rated Voltage	Coil Resistance	Mounting Method	Size (D" x H")	Pricing 1	Pricing 10	Pricing 100
138721	2048 @ 80	1.5V	50Ω	2 PC pins	.46 x .32	$.89	$.75	$.59
138739	2400 @ 85	5.0V	47Ω	2 PC pins	.46 x .35	.99	.79	.65
106500	3200 @ 80	1.5V	38Ω	2 PC pins	.48 x .40	.99	.89	.79

Piezo and Magnetic Buzzers

76064 196357 138712

These single tone 2-pin devices have driver circuits that can easily be used by applying a DC voltage source. The clear and penetrating sound make these buzzers ideal for fire alarms and smoke detectors.

Part No.	Operating Voltage (DC)	Frequency (kHz @ dB)	Type	Size (D" x H")	Pricing 1	Pricing 10	Pricing 100	Pricing 1000
76064	5V @ 30mA	2.3 @ 85	Magnetic	.57 x 0.4	$2.29	$1.95	$1.69	$1.43
196357	12V @ 5.8mA	4.0 @ 86	Piezo	.54 x 0.3	1.49	1.25	.99	.75
138712	12V @ 7mA	4.0 @ 80	Piezo	.54 x 0.3	2.29	2.06	1.85	1.69

Ultrasonic Sensor Sets

136653

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz • Aluminum case

136653: Transmit/Receive

- Capacitance: 2000pF ±30% • Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz • Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V µbar) R=3.9kΩ

139491

139491: Transmit/Receive

- Capacitance: 2000pF ±20% • Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V µbar) R=3.9kΩ • Case size: 0.30"H x 0.43" Dia.

Part No.	Product No.	Description	1	10	50
136653	40TR16F	Sensor set	$6.25	$5.49	$4.95
139491	40TR12B	Sensor set	6.25	5.49	4.95

Part Number Color Code
New Sale Refurbished Closeout

Round Ferrite Speakers

For speaker wire, see page 81

• Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

Part Number	Product Number	Dimensions (Dia." x H")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135589	FE200	2.0 x 0.7	0.2	0.4	8	83	420 – 5000	1.3 x 0.4	$1.35	$1.15	$.79
10840	FE201	2.2 x 0.7	0.2	0.4	8	88	400 – 4500	1.3 x 0.4	1.79	1.59	1.45
177130	57RF07	2.2 x 0.8	0.5	0.9	45	88	500 – 8000	1.6 x 0.5	.49	.43	.39
135714	FE202	2.6 x 0.8	0.3	0.5	8	88	340 – 4000	1.3 x 0.4	.65	.56	.50

135589 front

135589 back

Square Ferrite Speakers

• Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

Part Number	Product Number	Dimensions (Dia." x H")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135693	FEB200	2.0 x 0.7	0.2	0.3	8	82	500 – 6000	1.3 x 0.5	$1.35	$1.21	$1.09
31958	FEB216	2.6 x 0.8	0.2	0.4	16	85	330 – 8000	1.3 x 0.5	1.95	1.65	1.39
99995	FEB204	2.6 x 0.9	3.0	4.0	4	95	300 – 14000	1.8 x 0.5	2.19	1.85	1.59
171168	FEB450SP	4.2 x 1.5	1.0	2.0	8	90	300 – 14000	1.8 x 0.6	2.25	1.99	1.79

99995 front

99995 back

Flat-Magnet, Square Piezo Speakers

• Excellent for alarms or other voice uses • Stainless steel diaphragm

Part Number	Product Number	Dimensions (Dia." x H")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
34024	AZ30S	1.2 x 0.2	0.4	0.8	8	70	1300-8000	1.2 x 0.1	$1.69	$1.52	$1.35
76030	AZ40S	1.6 x 0.2	0.4	0.8	8	70	600-6000	1.6 x 0.1	1.95	1.75	1.49

34024 front

34024 back

Alnico Speakers

SALE

• For computer case use • Paper diaphragm • Wide frequency response • Pre-tinned solder lugs
• Large magnet • Impedance: 8Ω * P/N 189801: 10" lead wire

Part Number	Product Number	Fig.	Dimensions (Dia." x H")	Input Nom (W)	Input Max (W)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
88410	A0200	1	2.0 x 0.8	0.2	0.4	87	430 – 4500	0.5 x 0.4	$1.75	$1.49	$1.25
135765	A0201C	1	2.2 x 0.8	0.3	0.5	87	400 – 4000	0.5 x 0.4	1.25	.93	.64
189801*	SP05W	1	2.2 x 0.8	0.3	0.5	87	400 – 4000	0.9 x 0.5	1.19	.85	.59
135773	A0202C	1	2.6 x 0.9	0.5	1.0	88	320 – 5000	0.5 x 0.4	.85	.75	.68
185851	RF0305	1	3.0 x 0.9	0.3	0.5	87	400 – 4000	1.2 x 0.4	1.35	.93	.72
111587	B0102	2	1.7 x 0.6	0.1	0.3	83	500 – 5500	0.5 x 0.4	1.95	1.75	1.25
135781	B0200	2	2.0 x 0.8	0.2	0.4	80	430 – 4000	0.5 x 0.4	1.15	1.03	.92
135811	A1527C02	3	1.6 x 2.8 x 1.2	2.0	5.0	82	450 – 20000	0.5 x 0.5	2.95	2.49	2.25

Fig. 1

Fig. 2

Fig. 3

Front

Back

Samarium Cobalt Low Profile Speaker

• Round frame • Anodized metal surfaces • Ultra thin • Solder tabs • Paper diaphragm

Part Number	Product Number	Dimensions (Dia." x H")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135626	MSC299	2.0 x 0.3	0.3	0.5	8	85	550 – 5000	0.5 x 0.6	$3.25	$2.92	$2.63

Side

Back

1.2" (30mm) P.C. Mountable Speaker

• Round frame design • Ideal for PC board mounting • Mylar diaphragm • Solder leads

Part Number	Product Number	Dimensions (Dia." x H")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Pin Spacing (mm)	Pricing 1	Pricing 10	Pricing 100
135722	PCM41S	1.2 x 0.5	0.150	0.200	8	82	700 – 5000	15.0	$2.25	$1.99	$1.85

Communications Speaker with Magnetic Mount

- Frequency range: 200 - 18kHz
- Maximum input: 8 watts
- Impedance: 8Ω
- Black ABS case
- Size: 3.0"W x 2.0"D x 2.8"H
- Weight: 0.5 lbs.

Includes: 3' cord with 3.5mm male plug

Part No.	Product No.	Description	1	10
102031	CS3	Compact speaker	$9.95	$8.95

We'll Send It Today
99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Audio Stereo Adapter

1/8" Female to 1/4" Male

NEW

- Headphone stereo adapter
- ⅛" female to ¼" male (stereo)
- Length: 2.3"

Part No.	Description	1	10	100
196082	Audio adapter	$1.19	$1.09	$.99

In-Ear Stereo Headphones

- 3.5mm input jack connector
- Typical application: CD player
- Color: gray
- 4' Long

SALE

Part No.	Description	1	10	100	1000
191880	Headphones	$2.95	$2.49	$1.75	$1.25

RCA Cables

SALE

139037

177527

190617

- Video/audio applications • See page 57 for jacks

† **139037:** 1/8" male stereo plug to two RCA male (red & white) * **184882:** Low loss

Part No.	Description	1	10	100
183302	4' 2 males (red/black).	$2.95	$2.49	$1.95
139037†	5' male to male "Y"	2.95	2.12	1.56
177527	6' 3 males to 3 males	4.95	3.82	3.16
184882*	6' 3 males to 3 males....	3.95	3.49	2.95
183311	4' male to male	.99	.89	.79
106374	6' male to male	.99	.79	.55
190617	10' male to male (black)	1.19	.99	.75
29348	10' male to male (yellow)	1.39	1.19	.99

NEW

Full Range Replacement Speakers

These full range speakers are perfect replacements for TVs, stereos, and computer systems.

- Full range coaxial speakers provide extended frequency response and can handle higher-powered amplifiers
- Dual cone speakers provide richer base tones and crisper high tones
- Two way speakers provide extended frequency response with both a tweeter and woofer

196402: shielded magnet prevents signal distortion of TVs, monitors, and CTRs.

Part No.	Product No.	Size	Type	Freq. Range	Magnet Wt. (oz.)	RMS Watts	1	10
197026	4030	4"	Full range	100-15kHz	2	3	$7.95	$7.19
196402	480P039-1	4"	Full range shielded	120-10kHz	6	10	6.49	5.85
197042	5030	5"	Full range	135-15kHz	3	5	7.95	7.19
197069	5412PX	5.25"	Full range coaxial	70-20kHz	10	30	15.95	14.39
197077	6030W	6"	Full range dual cone	70-15kHz	3	8	10.95	9.85
197085	8010HC	8"	Full range dual cone	60-16.5kHz	10	15	16.95	15.39
197034	410CXB	4"	Full range two way	70-18kHz	10	5	14.95	13.45
197093	820CXB	8"	Full range two way	50-18kHz	10	20	19.95	17.95

196402

197077

197085

197034

Microphones and Microphone Cartridges

Headset with Microphone

Headphones:

- Frequency range: 20Hz to 18kHz
- Impedance: 320W
- Max. power input: 100Ω
- Sensitivity: 96dB @ 1kHz

Microphone:

- Frequency range: 50Hz to 12.5kHz
- Output impedance: <2kΩ

SALE

Part No.	Description	1	10	25
190588	Headphones w/ mic.	$6.85	$6.15	$5.53

COBY®

Omni-Directional Microphone Headset

- Frequency range: 20Hz to 20kHz (headset); 50Hz to 16kHz (microphone)
- Impedance: 32Ω
- Maximum power: 100mW
- Sensitivity: 98dB (headset); -62dB (microphone)

Part No.	Description	1	10	25
153875	Microphone headset	$11.95	$10.75	$9.69

See page 168 for complete specifications and other headsets and microphomes.

NEW

VHF High Band Wireless Microphones

198230

198248

198221

	198230	198248	198221
Microphone Type	Handheld	Handheld	Clip-on condenser
Max. Deviation Range	±25kHz, with limiting compressor	±15kHz with limiting compressor	±15kHz with limiting compressor
Transmission Range	100 ft.	300M	300M
Carrier Frequency Range	230-260MHz	170-210MHz	170-210MHz
Frequency Response	40Hz to 20kHz	100Hz to 15kHz	100Hz to 15kHz
S/N Ratio	Better than 80dB	Over 180dB @ 15kHz deviation	Over 180dB @ 15kHz deviation

The perfect microphone for use with portable PA systems, video recording, and stage use. There is no cord to restrict your movements while providing clear crisp sound.

- T.H.D. (total harmonic distortion): less than 0.5% for crystal-clear sound
- Frequency stability: ±0.005% with Quartz controlled

Includes: 0.25" mono jack patch cable, 9V battery, and power supply

Part No.	Product No.	Description	Wt. (lbs.)	1	5
198230	WA500	Microphone with receiver	1.1	$59.95	$54.95
198248	WR101R	Wireless microphone	2.1	119.95	107.95
198221	WR202H	Wireless microphone with clip-on headset	2.3	119.95	107.95

Omnidirectional Electret Condenser Microphone Cartridges

SALE

Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring

✻ 10 piece minimum order

189958/136573

116505

160979

175185

Top

Bottom

140986

175193

Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	1	10	100	1000
189958	WM-034B	-38 ±3dB	>2.2kΩ	20-16,000	10V	4.5V	0.8mA	-3dB @ 3V	>60dB	PC pin leads	.27" x .38"	$.75	$.53	$.39	$.32
116505	WM-54PC	-44 ±2dB	>2.2kΩ	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	.75	.59	.49	.39
160979	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	.79	.71	.64	.57
175185	KUC7823	-51 ±2dB	22kΩ	150-8,000	12V	4.5V	0.5mA	-2dB @ 4V	>40dB	Solder term	.19" x .24"	✻	.07	.06	.05
136573	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.75	.67	.60	.54
196488	JL-061C	-58 0dB	2kΩ	20-20,000	10V	2.0V	0.04mA	-3dB @ 1.5V	>55dB	Lead wires	.10" x .24"	1.25	1.15	.99	.89
140986	CRM919	-64 ±3dB	1kΩ ±30%	20-10,000	12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Solder pad	.90" x .39"	1.49	1.35	1.19	.99
Microphone Bushing															
175193	KCU2054	Microphone bushing for P/N 175185 **(✻ 10 piece minimum)**									.16"L x .20"	✻	$.03	$.02	$.01

These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681 (opposite page).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty * WBU5 and JE series do not interconnect

20757

20773

20790

20811

Attention Educators! Buy jumper wire in bulk and SAVE! (see Hook-up Wire on page 81)

WBU5 Series Key Features:
- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

JE Series Key Features:
- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19289 & 20079, below)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)

20600

94457

20669

20722

136901

77825

Part Number	Product Number*	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L x W (In.)	Baseplate Size L x W (In.)	Weight (lbs.)	Pricing 1	10	50	100
94457	JE19	0	1	100	0	6.5 x 0.4	—	0.04	**$2.95**	**$2.65**	**$2.39**	**$2.15**
20600	JE21	1	2	400	0	3.3 x 2.1	—	0.13	**4.95**	**4.49**	**3.95**	**3.49**
20669	JE22	1	0	630	0	6.5 x 1.4	—	0.20	**4.95**	**4.49**	**3.95**	**3.49**
194263	JE33	1	1	630	0	6.5 x 1.8	—	0.20	**7.95**	**7.15**	**6.45**	**5.75**
194280	JE35	1	1	640	0	6.9 x 2.1	—	0.23	**8.95**	**7.95**	**7.25**	**6.55**
194298	JE37	1	2	640	0	6.9 x 2.4	—	0.25	**9.95**	**8.95**	**7.95**	**7.25**
20722	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	**8.49**	**7.49**	**6.75**	**5.95**
194271	JE34	2	3	1260	3	6.5 x 4.0	8.5 x 4.7	0.73	**17.95**	**16.15**	**14.55**	**12.95**
20757	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	**12.95**	**11.95**	**10.95**	**9.95**
20773	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	**18.95**	**16.95**	**14.95**	**13.95**
194255	JE38	1	2	800	4	2.9 x 5.6	4.9 x 6.3	0.50	**16.95**	**15.25**	**13.75**	**12.35**
136901	WBU504	2	3	1,600	4	5.5 x 5.5	7.4 x 6.3	0.90	**22.95**	**20.95**	**18.95**	**16.49**
20790	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	**23.95**	**21.95**	**19.95**	**17.95**
20811	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	**31.95**	**28.95**	**26.95**	**24.95**

Part No.	Description	1	10	25
77825	Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 20 AWG wire, 5.9"L (15cm)	**$11.95**	**$10.95**	**$9.95**

PLCC Prototype Adapters

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.

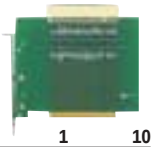
73550

- PCB construction
- Silkscreen numbers identify pin numbers in groups of 5 and 10
- Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover
- Gold-plated round pins

Part No.	Pins	Size (L x W)	1	10	100
73541	44	2.3" x 1.6"	**$10.95**	**$9.95**	**$8.95**
73550	68	3.4" x 1.6"	**15.95**	**14.49**	**12.95**
73568	84	4.3" x 1.9"	**21.95**	**19.95**	**17.95**

PCI-Bus Extender Card

- PCI Bus
- Extends life of motherboard connectors
- Gold-plated fingers for long life
- Size: 5.9"L x 5.4"W



Part No.	Description	1	10
141381	PCI-bus extender card	**$69.95**	**$62.95**

BestProto AT/ISA Prototyping Board

- Can accommodate a PGA package with a 31 x 31mm footprint
- Twenty-one 1206 surface-mount bypass capacitor sites and 142 unconnected sites
- Size: 8.2"L x 4.2"W

Low noise power and ground planes

Includes: Signal definition chart

Part No.	Description	1	10	25
136469	AT/ISA protoboard	**$29.95**	**$26.95**	**$23.95**

PCI Bus Prototype Board

- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grids

- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W
- Weight: 0.6 lbs.

Part No.	Description	1	10
141372	PCI prototype bus board ..	**$69.95**	**$62.95**

8/16-Bit PC/XT/AT Solderless Plug-In Breadboard

- IBM PC/XT/AT and higher compatible
- 62 data I/O lines and a DB25 female connector for interfacing to peripherals
- Twenty-four 14-pin IC capacity
- Clearly labeled bus lines
- Durable construction
- Size: 13.8"L x 5.0"W
- 2,352 contact points
- One-year warranty
- Weight: 1.0 lb.

Easy PC/XT/AT Prototyping!

Part No.	Description	1	10	25
81672	8/16-bit breadboard	**$59.95**	**$53.95**	**$47.95**

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 185

Digital Design Lab

Solderless Breadboard
1580 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads.

DC Power Supplies
DC supplies equipped with short circuit protection
Variable DC power: 0 to +15V & 0 to -15V @ 0.5A
+5VDC power supply: 5V ± 0.25V @ 1A (no load to full load)
-5VDC power supply: -5V ± 0.25V @ 1A (no load to full load)

Two 7-Segment Displays (digit height: 0.3")

Function Generator (5 ranges)
Frequency range: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
Sine wave output: 0–8 Vp-p variable
Triangle wave output: 6Vp-p fixed
Square wave output: ±5V fixed

International 115/220VAC Switchable

Digital Voltmeter (DVM) 4 ranges
3-1/2 digits LED display (digit height: 0.3"); 199.9mV, 1.999V, 19.99V, 199.9V, full scale
- Input AC voltage: 115VAC/220VAC @ 50/60Hz – switchable
- Size: 10.6"W x 13.3"D x 5.0"H (back panel)
- Weight: 8.1 lbs. • One-year warranty

Part No.	Description	1	10	25
75838	Digital lab	$279.95	$249.95	$226.95

Digital-Analog Design Lab

Solderless Breadboard
2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

International 120/220VAC Switchable

DC Power Supplies
Variable DC output: 0 to +15V & 0 to -15V @ 500mA
Fixed DC output: +5VDC, 1A; -5VDC, 300mA
Input power: 120/220VAC @ 50/60Hz (switchable)

Function Generator
Frequency ranges: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
Sine wave output: 0–8 Vpp variable
Triangle wave output: 0–6 Vpp variable
Square wave output: 0–8 Vpp variable

Other features:
- 2 variable resistors: VR1=1kΩ, VR2=100kΩ
- 8 data switches • 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: $\overline{A}$, A, $\overline{B}$, B)
- 2 banana sockets, 2 BNC jacks
- Two 7-segment LED displays (digit height: 0.3")
- 8 red LEDs with separate input terminals
- Size: 12.8"W x 9.8"D x 3.7"H
- Weight: 8.5 lbs.
- One-year warranty

Includes: Power cord and manual

Part No.	Description	1	10	25
136266	Digital-analog lab	$359.95	$324.95	$299.95

DC to 50MHz Wideband Prototype Board

Perfect for engineering and school labs!

This 2nd generation solderless board is ideal for high-speed low-noise analog and mixed signal circuits. Useful to students and engineers for experiments and product testing.

- Low inductance grounding system and power line decoupling circuits for operation over 50MHz
- Four dedicated ground buses and four uncommitted bus lines
- Eight BNCs for signal and power connections
- Side rails for added connectors, power devices and switches
- Working area: 6.5" x 4.3" with 1660 holes (0.1" spacing)
- SOIC/DIP and microprocessor/DIP adapters available
- Size: 7.4"L x 5.1"W x 1.5"H
- Weight: 1.2 lbs. • One-year warranty

Includes: Cover

Part No.	Description	1	10	25
132177	Wideband protobrd.	$74.95	$68.49	$59.95

Powered Project Board

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal
- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50/60Hz (switchable)
- Replacement fuse: P/N 103907, pg 59
- Power switch with light
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs.
- One-year warranty

International 120/220VAC Switchable

CE

Includes: Power cord

Part No.	Description	1	10	25
136258	Powered breadboard	$99.95	$89.95	$79.95

Practical Electronics Handbook

Newnes Publishing Covers all the key data, facts, practical guidance and circuit design basics needed. This book provides a wealth of clear explanations and practical guidance, making the ideal text for students and practitioners of electronics who have progressed beyond the basics. (561 pages, 2000)
- Size: 6.1" x 9.2" • Weight: 1.9 lbs.

SALE

Part No.	Description	1	10
175409	Practical Electronics Book ..	$29.95	$26.98

Wire Jumper Kit (350 pcs.)

19289

- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/ preformed 22 AWG solid wire jumpers

19289: 350-piece wire jumper kit
- Handy, durable, clear plastic case

20079: 350-piece refill for 19289
- Case not included

Part No.	Description	1	10	50	100
19289	Wire jumper kit	$10.49	$9.49	$8.49	$7.49
20079	Refill for 19289 ...	8.95	7.95	6.95	6.25

Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 yellow, 2 white, 2 red, 2 black, and 2 blue

126341

Part Number	Product Number	Length (mm / inch)	1	10	100
126359	JW50	50 / 1.97	$3.95	$3.49	$2.95
126341	JW100	100 / 3.94	4.09	3.65	3.09
126324	JW200	200 / 7.87	4.25	3.75	3.25

AC/DC Power Supply

Ideal for Breadboards on page 90

With built-in short-proof regulated power supplies.

- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact and lightweight
- For both digital and analog circuits
- Color: beige
- Input power: 120/220VAC @ 50/60Hz (switchable)
- Compatible with test leads P/N 77841, pg 110
- Size: 7.4"W x 5.5"D x 2.6"H
- Weight: 5.5 lbs. • One-year warranty

Output Specifications:
+5VDC @ 1A; -5V @ 300mA fixed;
0 to +15VDC @ 500mA variable,
0 to - 15VDC @ 300mA variable;
12-6-0-6-12 tapped VAC, 300mA fixed

International 120/220VAC Switchable

Part No.	Description	1	10	25
77681	Power supply	$119.95	$109.95	$99.95

We'll Send It Today
99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

Part Number Color Code
New Sale Refurbished Closeout

General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- Plated through pads are double-sided

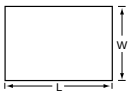
105110

21434

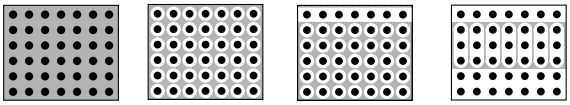
52943

21477

Board Outline



Circuit Patterns



A Holes Only | **B** Pad Per Hole | **C** Power/Ground Perimeter Bus with Pad Per Hole | **D** 3 Hole Solder Pad and Bus

See pg 86 for PCB mounting enclosures and hardware, recommend P/N 106551

Part Number	Product Number	Size (W" x L")	Fits Enclosure(s) (see page 86)	Circuit Pattern	Hole Pads	# Holes x Dia. †	Power/Ground Busses	Connector I/O or Edge	# Mounting Holes x Dia.	Weight (lbs.)	Pricing 1	10	50	100
105099	2855PCB	1.60 x 2.70	18921	B	single-sided	288 x .035"	none	none	2 x .115"	.02	$5.49	$4.95	$4.49	$3.95
105101	5002PCB	1.50 x 3.50	11957	C	single-sided	365 x .038"	4	none	2 x .140"	.02	6.95	6.25	5.59	4.95
105128	2853PCB	2.00 x 4.40	18913, 11965	C	single-sided	669 x .038"	4	none	4 x .140"	.03	7.95	6.95	6.25	5.59
105110	2300PCB	2.40 x 3.40	11869, 11914	C	single-sided	637 x .038"	4	none	2 x .140"	.03	6.95	6.25	5.59	4.95
28177	PCB1	2.42 x 4.10	18913	C	plated through	674 x .040"	none	none	4 x .120"	.04	5.29	4.79	3.95	3.49
105152	2851PCB	3.10 x 5.50	18892	C	single-sided	1450 x .035"	7	none	4 x .140"	.07	9.95	8.95	7.95	6.95
105136	2320PCB	3.30 x 4.50	11885	C	single-sided	1266 x .035"	4	none	4 x .140"	.06	8.95	7.95	6.95	5.95
105161	2852PCB	3.60 x 7.00	18905, 11973	B	single-sided	2225 x .035"	4	none	4 x .140"	.10	13.95	12.49	11.25	9.95
105144	2743PCB	4.50 x 4.70	11922	C	single-sided	1869 x .035"	6	none	4 x .120"	.09	9.95	8.95	7.95	6.95
21434	JE401(8001)	4.50 x 6.50	18868	B/D	single-sided	2360 x .042"	2	none	none	.12	21.95	19.95	17.95	15.95
21451	JE405(8003)	4.50 x 6.50	18868	C	single-sided	2360 x .042"	1	none	none	.12	19.95	17.95	15.95	13.95
43140*	64P44XXXP	4.50 x 6.50	18868	A	drilled only	2860 x .042"	none	none	none	.09	5.95	5.35	4.75	4.49
52943	84P44WE	4.50 x 8.50	18876	A	drilled only	3740 x .042"	none	none	none	.15	8.95	8.49	7.95	6.49
37604	169P44WE	4.50 x 17.0	N/A	A	drilled only	7524 x .042"	none	none	none	.31	15.49	14.95	14.49	13.95
37612*	169P44XXXP	4.50 x 17.0	N/A	A	drilled only	7524 x .042"	none	none	none	.25	12.95	11.65	10.45	9.45
105179	2505PCB	5.00 x 6.50	11893, 18868, 11949	C	single-sided	2829 x .035"	7	none	8 x .120"	.13	13.95	12.49	11.25	9.95
28193	PCB3	5.00 x 8.00	18876	C	plated through	3705 x .042"	4	mounting area-I/O	4 x .120"	.17	23.95	20.95	19.95	17.95
21477	JE407(8006)	5.00 x 13.25	N/A	B	plated through	6063 x .038"	none	none	8 x .120"	.28	39.95	35.95	32.49	28.95
105187	2507PCB	6.10 x 8.80	18876	C	single-sided	4771 x .035"	7	none	8 x .140"	.21	29.95	26.95	23.95	21.95
37621	169P84WE	8.50 x 17.0	N/A	A	drilled only	14448 x .042"	none	none	none	.53	22.95	20.49	18.49	16.95

* PCB material: epoxy glass; except P/N 43140 and 37612 are phenolic † All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

ISA Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precision standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold

21531

28206

Part Number	Product Number	Description	Size (Inches) W x L	Terminals (below) T44	T49	T421	I/O Connector (not included)	Circuit Pattern	Hole Pads	# Holes x Dia.	Power/ Ground Bus	# Mounting Holes x Dia.	Weight (lbs.)	Pricing 1	10	25
21531	JE417	PC/XT 8-bit	4.2 x 6.5	yes	yes	yes	D-sub 9, 15, 25 & 37	C	plated through	2126 x .042"	2	8 x .120"	.12	$22.95	$20.49	$18.49
28206	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	D-sub 9, 15 & 25	C	plated through	4890 x .042"	2	4 x .120"	.23	26.95	24.25	21.85

• See page 86 for circuit board mounting hardware • See page 84 for aluminum round and hex spacers & standoffs

Wire Wrap and Push-In Terminals

For .042" Diameter Holes

Specifications:

- Material: copper alloy • Prebagged 100 pcs.

34147: Push-In Micro-Klip Terminals

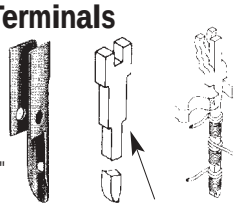
- Overall length: .36" • Post size: .032" x .045"

34155: Miniwrap Wiring Terminals • Shoulder: .045"

- Two-prong with square tail for wire wrapping
- Overall length: .69" • Post size: .025"Sq.

34163: Klipwrap Wiring Terminals • Shoulder: .045"

- Three-prong with square tail for wire wrapping
- Overall length: .83" • Post size: .025"Sq.



34147 34155 34163

Part Number	Product Number	Height Above .062" Board	Length Below .062" Board	100 pc. units 1	10
34147	T421	.200	.097	$5.95	$5.35
34155	T44	.065	.530	6.95	6.25
34163	T49	.200	.530	11.95	10.79

Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

- 1.6mm thickness

Fig. 1 / Fig. 2 / Fig. 3

Part No.	Product No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10	50
Single Side							
169279	PCBS3X6	3.0 x 6.0	3	0.1	$2.95	$2.49	$1.95
169287	PCBS6X6	6.0 x 6.0	2	0.2	4.95	4.49	3.95
169295	PCBS12X12	12.0 x 12.0	1	0.5	12.95	11.49	9.95
Double Side							
169308	PCBD3X6	3.0 x 6.0	3	0.1	4.95	4.45	3.95
169316	PCBD6X6	6.0 x 6.0	2	0.2	7.95	7.15	6.45
169324	PCBD12X12	12.0 x 12.0	1	0.7	17.95	15.95	14.49

EDWin 2000 Electronics CAD/CAE Software

A special license available for home users, students, educational establishments and businesses wishing to evaluate the system.

- 500 device library; 100 component database
- Schematic capture: autopackaging and autocheck
- Layout design (28 layers): autoplacement and autocheck
- Optional autorouting
- Mixed-mode simulation: diagram generator
- Postprocessing: Gerber 274D, 274X, NC drill, pick and place

System requirements: 486 or higher compatible, Windows® 9X/NT, min.100MB hard drive space, 16MB of RAM, SVGA color monitor, graphics controller card and mouse; EDWin runs in Windows® 9x/NT and is fully integrated

Part No.	Description	Wt. (lbs.)	1	10
181892	EDWin 2000 Basic	0.79	$299.95	$279.95

WinDRAFT Schematic Design Software

"…still one of the most flexible, best featured, and economical schematic capture programs on the market suitable for professional use." — Desktop Engineering

- Supports up to 450 pin designs

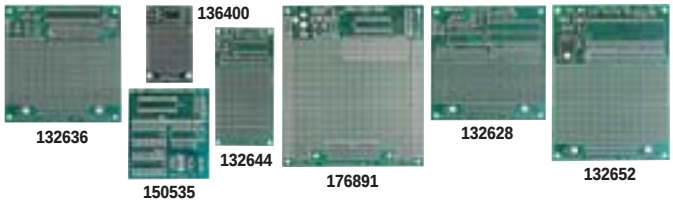
System requirements: 486/DX2, 10MB hard drive space, 8MB RAM, SVGA (800 x 600)

Part No.	Description	Wt. (lbs.)	1	10
142981	WinDRAFT Electronic Schematic CAD	1.6	$159.95	$143.95

microEngineering Labs "PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Large prototyping area
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes
- Solder mask on both sides makes soldering easy • Silkscreen legend

Includes: Documentation sheet with schematic, suggested parts and placement



PICProto 18, 18L: For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	1	10
132644	PICProto 18	3.0 x 1.5	$9.95	$8.95
176891	PICProto 18L	3.6 x 4.1	19.95	17.95

PICProto 3: For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

132636	PICProto 3	3.0 x 3.0	$14.95	$13.49

PICProto 64: For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652	PICProto 64	4.0 x 3.0	$16.95	$14.95

PICProto 8: For all 8-pin PIC12Cxxx and 12Cexxx

136400	PICProto 8	2.0 x 1.2	$8.95	$7.95

PICProto Dual: For 18-pin PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84, as well as the 28-pin PIC16C55, and 57. It will accept either the standard 0.6" 28-pin device or the 0.3" skinny DIP

132628	PICProto Dual 18/28	3.0 x 3.0	$14.95	$13.49

PICProto S1: For working with circuits in "Easy PIC'n" and PIC'n Up the Pace"(books sold on page 98). Holds 18-pin PICmicro, oscillator, 5-volt power supply, DIP switches, and socket to solderless breadboard

150535	PICProto S1	2.1 x 1.9	$14.95	$13.49

Toll-Free Technical Support
Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

microEngineering Labs EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 13.

- Simple installation with parallel port (printer) interface
- Interactive software for Windows and DOS
- Command line operation for automated, non-interactive programming
- PICmicro Assembler software included

Requires: Two 9V batteries or AC adapter (recommended – see below)

Part No.	Description	1	10
132679	EPIC Plus PICmicro programmer	$59.95	$53.95
136397	8/18/20-pin ZIF adapter	34.95	31.95
132610	40/28-pin ZIF adapter	34.95	31.95
154763	In-circuit programming adapter (18-pin)	49.95	44.95
162317	AC wall adapter (16VDC/500mA, details on page 73)	5.95	4.82
67256	6' DB25 cable (details on page 163)	5.95	5.35

microEngineering Labs PICBasic and PICBasic Pro Compiler

PICBasic converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows (includes Windows editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support

132661

132661: PICBasic Compiler
- Expanded BASIC Stamp I compatible instruction set
- PEEK and POKE instructions to access any register from BASIC
- Serial speeds to 9600 baud
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx,84, 92x, and PIC16CF8xx microcontrollers • May use up to 2k of code space

150543: PICBasic Pro Compiler
- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k • Bit, byte, word arrays
- Real If…Then…Else…Endif • Hierarchical expression handling
- Interrupts in BASIC and assembler • BASIC Stamp I and II library
- Built-in LCD support • MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

Part No.	Description	1	10
132661	PICBasic compiler	$99.95	$89.95
150543	PICBasic Pro compiler	249.95	224.95

microEngineering Labs LAB-X1 Experimenter's Module Board

The LAB-X1 is a pre-assembled experimenter's platform. It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.

- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20/P recommended) • Jumper selectable oscillator from 4MHz to 20MHz
- Reset button • 16 switch keypad • 3 potentiometers • LED bargraph
- 2 lines x 20 characters LCD module • Speaker • 2 RC servo connectors
- RS232 interface • Socket for RS485 interface (device not included)
- Socket for I2C & SPI serial EEPROM (device not included) • One-year warranty
- Socket for Microwire serial EEPROM (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector • Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector • Size: 5.5" x 5.6"

Requires: AC adapter (see below)

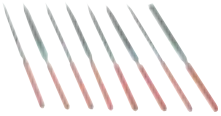
Part No.	Description	1	10
169113	LAB-X1 Experimenter Board	$199.95	$189.95
176903	LAB-X1 Experimenter Board Kit	139.95	132.95
198168	LAB-X2 for 28 and 40-pin MCUs	69.95	62.95
198176	LAB-X3 for 18-pin MCUs	119.95	107.95
176882	PIC16F877-20/P microcontroller (pg 13)	9.49	8.49
127976	AC adapter (details on page 72)	4.49	3.95

Part Number Color Code
New Sale Refurbished Closeout

8-Piece Steel File Set

- Strong tool steel

Includes:
1 ea. 0.15"Dia. x 5.65"L
1 ea. 0.13"Dia. x 5.65"L
4 ea. 0.22"Dia. x 5.65"L
1 ea. 0.12"Dia. x 5.65"L
1 ea. 0.11"Dia. x 5.65"L



Part No.	Prod.No.	Description	1	10
100360	FS108F	8 piece file set	$9.95	$8.95

Magnetizer/Demagnetizer Tool

Perfect for Small Tools

Convenient pocket size tool, housed in strong plastic case. Ideal for general magnetizing & demagnetizing small hand tools. Open slots for magnetizing & demagnetizing function.

- Size: 2.0"L x 2.0"W x 1.0"H

SALE

Part No.	Description	1	10	50
175960	Magnetizer tool	$3.35	$2.97	$2.67

1/4 – 1/2 Watt Resistor Lead Forming Tool

- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"; 5.4"L x 1.5"W

106884

Part No.	Product No.	Description	1	10	50
106884	RLF801	1/4-1/2W ..	$2.79	$2.59	$2.39

Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H

Includes: 13 different types of blades

Part No.	Description	1	10	25
72768	13 blade knife set	$8.49	$7.59	$6.85

5" Steel Hemostats

- Grade 410 A.I.S.I. stainless steel
- Three locking positions
- Available with straight or curved tip

115107

Part No.	Product No.	Description	1	10	25
115107	HEMO1	5" straight	$3.95	$3.49	$2.95
115115	HEMO2	5" curved	4.19	3.79	3.39

Strip-Wrap-Unwrap Tools

- Tool tip made of tempered steel
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 81 for wire
- Spring steel cutter • 4.5" long

34577

34585:
- Wrap 1 to 2 turns of insulated portion of wire for secure connections
- Modified tool

Part No.	Product No.	1	10	25
34577	WSU30	$24.95	$23.95	$22.95
34585	WSU30M	27.95	24.95	22.95

Digital Display Calipers

Metric or Inches

- Hardened stainless steel
- Display:inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Instructions for making internal, external, depth and step measurements
- Auto-off after 5 minutes
- Calipers measure to 6 inches/150mm
- Weight: 0.8 lbs. • One-year warranty

Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783, pg 58)

Part No.	Description	1	5	10
127482	Digital disp. calipers	$69.95	$62.95	$57.95

Precision Micrometer

0"–1" Range ± .0001"

SALE

Forged steel frame precision micrometer is complete with chrome barrel and thimble for easy-to-read contrasting graduation. Hardened, precision-ground measuring surface with positive spindle lock holds measurements. Accurate to .0001". Quick and easy zero adjustment with spanner wrench.

- Length: 5.4" • Weight: 0.7 lbs.

Part No.	Description	1	10	25
169543	Precision micrometer	$12.35	$11.07	$9.96

Metal Dial Calipers

Metric or Inches

116134

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Materials: metal
- Length: 6" (150mm)
- Color: silver • Weight: 0.7 lbs.

Includes: Fitted plastic storage case

Part No.	Description (min. reading)	1	10	25
116134	Metric (.02 mm)	$29.95	$26.95	$23.95
116126	Inches (.001 inch) ...	29.95	26.95	23.95

Electrician's Scissors Tool

- Two notches for stripping 19 and 24 AWG
- Stainless steel
- Sharp edge inside blade for cutting
- Serrated edge outside blade for stripping
- Size: 5.2"L

SALE

Part No.	Description	1	10	25
175978	Electricians scissors	$7.79	$6.99	$6.29

We'll Send It Today
99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

Glue Gun and Sticks

- Adheres to PCBs, cardboard, wires and metal
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes long glue sticks (100mm)
- Size: 7.3"L x 6.3"W • Weight: 0.8 lbs.

72696

Part No.	Description	1	10	25
72696	Glue gun	$9.95	$8.95	$7.95
78633	Glue sticks (6/pk)	2.95	2.49	1.95
176292	Glue sticks (10/pk)	4.95	3.82	3.16

Black Desk Lamps

SALE

- Ventilated metal shade
- Double shade reduces glare
- Max. bulb size 60W (not included)
- Power requirement: 110VAC/60Hz
- Rotating on-off switch

SALE

159951 159960

159951: Lamp
- Base size: 5.5" diameter
- Height: 16.0" • Weight: 2.5 lbs.

159960: W/ organizer (for pens & paper clips)
- Base size: 7.1"H x 4.2"W
- Height: 15.0" • Weight: 2.0 lbs.

Part No.	Description	1	10
159951	Desk lamp	$3.95	$3.49
159960	Lamp w/ organizer	3.95	3.49

AA-Battery Flashlight

- Black hard plastic body
- Size: 6.0"L x 0.9"D

Requires: 2 AA batteries (listed below)

SALE

Part No.	Description	1	10	100
159812	GE flashlight	$1.95	$1.49	$.79
151087	AA batteries	.39	.32	.19

13-Piece 3/8" Drive Socket Set

With Holder

- Metric sizes: 8mm, 9mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 16mm, 17mm 18mm, 19mm
- Drop forged • Heat treated
- Fully polished and chrome plated
- Weight: 1.2 lbs.

SALE

Part No.	Description	1	10	50	100
179910	Metric set	$6.29	$5.65	$5.09	$4.59

40-Piece Electronic Tech Tool Kit

- Zipper vinyl case
- Weight: 1.7 lbs.
- Size: 9.5"L x 6.8"W x 1.4"H

Includes: IC inserter w/ pin straightener, IC extractor, extra long 3-claw parts holder, slotted and Phillips screwdriver bits, 6mm-12mm metric nut driver sockets, 3/16"-1/2" S.A.E. nut driver sockets, T10-T25 reversible TORX screwdriver bits, potentiometer alignment tools, adapter bit for sockets, wire cutters and stripper, and pocket clip screwdriver

Part No.	Description	1	10	25
119183	40-piece tool kit	$19.95	$17.95	$15.95

10-Piece Hex Key Wrench Sets

72469 includes: 1.5, 2, 2.5, 3, 4, 5, 5.5, 6, 8, and 10mm wrenches

72477 includes: 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8" wrenches

SALE

72469

Part No.	Description	Wt. (lbs.)	1	10
72469	Metric hex key set	0.6	$2.39	$2.14
72477	SAE hex key set	0.5	2.45	2.19

8-Piece Fold-Up TORX Key Set

- 3.7" long handle
- TORX bits: T9, T10, T15, T20, T25, T27, T30, T40
- Size: 3.7"L x 1.2"W

Part No.	Description	1	10	100
176006	TORX key set	$10.95	$9.85	$8.86

Retaining Ring Pliers

Internal/External

- Hi-carbon tempered steel
- Black oxide finish
- Vinyl grip • Length: 6"
- For 0.47" to 0.98" diameter retaining rings

Part No.	Description	1	10	25
177551	Retaining ring pliers	$11.95	$10.75	$9.69

Groove Joint Pliers

SALE

- Drop forged steel
- Heat treated
- Milled jaws
- Vinyl grips
- Polished head
- Length: 10" • Weight: 0.9 lbs.

Part No.	Description	1	10	50
177578	Groove pliers	$9.95	$8.95	$7.99

Slip Joint Pliers

- Drop forged steel
- Heat treated
- Polished head
- Milled jaws
- Vinyl grips
- Length: 8"
- Weight: 0.6 lbs.

SALE

Part No.	Description	1	10	50
177586	Slip pliers	$2.69	$2.45	$2.19

Linesman Pliers

- Drop forged steel
- Heat treated
- Milled jaws
- Vinyl grips
- Polished head
- Length: 8"
- Weight: 0.9 lbs.

Part No.	Description	1	10	50	100
177594	Linesman pliers	$9.95	$8.95	$7.99	$7.29

Half-Round Long Nose Pliers

- Drop forged steel
- Heat treated
- Spring return action
- Vinyl grips
- Length: 4.5"
- Knurled jaws

Part No.	Description	1	10	50	100
177607	Half-round	$3.95	$3.49	$2.95	$2.49

Cordless Screwdriver

- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180rpm
- Clutch operating torque from 4 to 21kg/cm
- 3.6V rechargeable battery
- Size: 10.5"L x 1.5" Dia. • Weight: 1.6 lbs.

Includes: 6VDC @ 300mA power supply and screwdriver bits (slotted and Phillips)

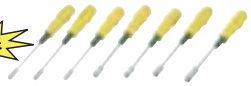
Part No.	Description	1	10
176680	Screwdriver	$49.95	$44.95

7-Piece Hex Driver Tool Set

- Size of drivers: 6.3"L

Includes 1 ea.: 3, 3.5, 4, 4.5, 5, 5.5 and 6mm

SALE



Part No.	Description	1	10
148929	Hex nut driver tool set	$9.85	$8.95

4-Way Master Key Chuck Tool

- Opens a variety of chucks (P/N 172911 opens 86 types); (P/N 172929 opens 127 types)
- Opens most chucks from manufacturers such as Cooper, Milwaukee, Craftsman, Black and Decker, and Rohm

172911: • Chuck size: 1/4" to 3/8" • Wt.: 0.3 lbs.
172929: • Chuck size: 1/2" to 3/4" • Wt.: 0.6 lbs.

Part No.	Description	1	10	25
172911	Opens 86 chucks	$10.95	$9.85	$8.89
172929	Opens 127 chucks	11.95	10.75	9.69

Pin Vise w/ Reversible Chuck Nose

SALE

- Knurled steel swivel handle
- Solid locking chuck nose
- Adjustable nose from .00" to .05" and .05" to .08"
- Length: 3.5"

Part No.	Description	1	10	25
173323	Pin vise	$4.85	$4.33	$3.89

10-Piece Combination Open-End/Box Wrench Set

- Material: alloy steel

Includes 10 wrenches with the following sizes: 5/32, 3/16; 3/16, 5/32; 13/64, 7/32; 7/32, 15/64; 15/64, 1/4; 1/4, 9/32; 9/32, 5/16; 5/16, 11/32; 11/32, 3/8; 3/8, 7/16

Part No.	Product No.	Description	1	10
99602	WS608	10 pc. wrench set	$9.95	$8.95

See pages 94 - 101 for a wide selection of Tool Sets and Kits

6-Piece Electronic Screwdriver Set

- Three slotted: 0.09"Dia. x 6.6"L 0.12"Dia. x 6.6"L 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L

Part No.	Description	1	10	25
99451	6-pc. screwdriver set	$6.95	$6.25	$5.59

Xcelite

6-Piece Precision ESD Screwdriver Set

Swivel caps and comfort grip handles provide optimum control.

- Cushion grip
- 4 slotted
- 2 Phillips: No. 0 and 00
- 0.1"Dia. x 6.5"L

Part No.	Product No.	1	10
168735	XP600	$19.95	$17.95

6-Piece Screwdriver & Pliers Set

- One micro cutting nipper
- One micro flat nose pliers
- Two slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L
- Two Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L

Part No.	Description	1	10	25
99565	Screwdriver/plier set	$11.49	$10.49	$9.49

6-Piece Precision Screwdriver Sets

34041 includes: 3/64", 1/16", 5/64", 5/32", 1/8" and 9/64" slotted screwdrivers

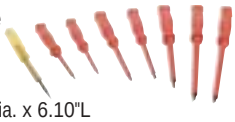
34059 includes: 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers

34041

Part No.	Description	1	10	50
34041	Slotted screwdriver set	$2.95	$2.49	$2.25
34059	Phillips screwdriver set	2.95	2.49	1.95

8-Piece Electrician Screwdriver Set

- Insulated handle & blade protection– up to 1000V
- Four slotted: 0.24"Dia. x 9.91"L; 0.2"Dia. x 8.92"L; 0.16"Dia. x 7.54"L; 0.1"Dia. x 6.10"L
- One slotted with Buz light: 0.16"Dia. x 7.4"L
- Three Phillips: No. 0, 0.1"Dia. x 6.10"L; No.1, 0.16"Dia. x 7.54"L; No.2, 0.24"Dia. x 9.91"L
- Material: chrome-vanadium • Weight: 1.2 lbs.



Part No.	Prod. No.	Description	1	10
99688	SD315B	8-pc. screwdriver set	$9.95	8.95

JAMECO

Pocket Screwdriver

Phillips/Flat head

- Pocket screwdriver with Phillips and slotted
- Pen clip for pocket storage • Size: 6"L

Part No.	Description	1	10	100
127271	Pocket screwdriver	$.99	$.79	$.65

Part Number Color Code
New Sale Refurbished Closeout

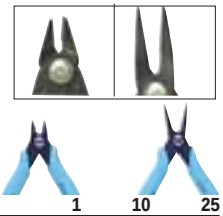
Flat and Half-Round Long Nose Pliers

35473

- Stainless steel • Spring return
- Durable rubber handles
- 5.3" length w/ 1.4" plier nose
- **35473/35490:** Knurl jaws
- **195531:** Smooth jaws

Part No.	Description	1	10	50	100
35473	Flat long nose	$4.95	$4.49	$3.95	$3.49
195531	Flat long nose	3.95	3.49	2.95	2.49
35490	Half round	4.95	4.49	3.95	3.49

Xcelite Shearcutter/Plier Tool Set



- Improved handle grip for control and comfort
- Non-glare black finish carbon steel
- Size (plier): 5.6"L
- Size (shearcutter): 5.2"L

Part No.	Description	1	10	25
152055	Cutter/plier set (S2K)	$14.95	$13.49	$11.95

Xcelite Pliers

146712 146739 146721

- Spring returns

146712: Micro series wire cutter – flush
146739: Diag. wire cutter – semi-flush
146721: Long needle nose – flat

MADE IN THE USA

Part No.	Product No.	1	10	25
146712	170M	$5.95	$5.35	$4.79
146739	MS54V	13.95	12.49	11.25
146721	MN7776V	15.95	14.49	12.95

Diagonal Pliers

- Drop forged steel
- Heat treated
- Vinyl grips
- Spring return action
- Polished head
- Length: 4"

Part No.	Description	1	10	50	100
179901	Diagonal pliers	$3.95	$3.49	$2.95	$2.49

5" Wire Cutters/Strippers

78991

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Adjustment for wire gauges
- Size: 5.0"L x 3.0"W
- One-year warranty

183003: for 12-24 AWG wire
78991: for 10-30 AWG wire

Part No.	Product No.	1	10	50
183003	JE107	$2.95	$2.49	$2.25
78991	HT108	2.95	2.49	2.25

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 185

Precision 5-Piece Stainless Steel Plier Set

- Spring return • Insulated handles

Includes: One 3.5"L micro cutting nippers and one each 4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

Part No.	Description	Wt. (lbs.)	1	10	25
73120	5-piece set	0.6	$16.95	$14.95	$13.49

4.3" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3"L x 2.1"W with 0.5" cutting blade

Part No.	Description	1	10	50	100
35481	Wire cutter	$4.95	$4.49	$3.95	$3.49

5" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick and 0.08mm fine wire
- Insulated handles
- Jaws are designed for flush cutting
- 5.0"L x 1.8"W with 0.5" cutting blade

Part No.	Product No.	1	10	25
161411	Wire cutter	$6.95	$5.95	$4.49

6.6" Wire Cutter/Stripper

24 AWG Stripper

- Strips and cuts wire as small as 24 AWG
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 6.6"L x 3.0"W

Part No.	Product No.	1	10	25
159273	HT1091	$3.95	$3.49	$2.95

EZ Lock Pliers

SALE

- Automatic self-sizing locking pliers
- Variable pressure for adjustable gripping force
- Drop forge construction for strength and durability
- Padded handles for comfort
- Length: 10" • Weight: 1.5 lbs.

Part No.	Description	1	10	50	100
179928	EZ lock pliers	$5.95	$5.45	$4.89	$4.39

Wire Stripper

22-30 AWG

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W

Part No.	Product No.	1	10	25
159290	HT5023	$7.95	$6.95	$6.25

Rotary Coax Cable Strippers

2 and 3 Blade

159118 159185

159118 (3 Blade):
Two settings RG58/59/62
- For cable sizes 4-10mm
- Size: 4.2"L x 1.3"W
- Color: black

159185 (2 Blade):
Four settings
RG58/59/62/174
- For cable sizes 4-12mm
- Size: 3.9"L x 0.7"W • Color: gray

Includes: Hex key wrench for adjusting blade

Part No.	Product No.	1	10	25
159118	HT312B (3 blade)	$10.95	$9.95	$8.95
159185	HT332D (2 blade)	10.95	9.95	8.95

Universal Stripper

Strips Round and Irregular Shaped Cable

SALE

- Strips 18-22 AWG wires
- For STP/UTP, computer cable, SPT-1/SPT-2, flat wire, 2P/4P/6P/8P
- Size: 4.5"L x 2.0"W

Part No.	Product No.	1	10	25
159169	HT501	$4.85	$4.33	$3.90

Automatic Wire Stripper

- Strips 8-22 AWG wires
- Spring load grip
- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

Part No.	Description	1	10	25
175097	Auto wire stripper	$14.95	$13.49	$11.95

Standard T5 & T6 Wire Strippers

161200

Quality built strippers feature looping holes, built-in wire cutters, cushioned plastic grips and precision knife-type blades for an accurate easy strip every time.

- Size: 6.0"L x 2.0"W

161200: T-5
- 10-18 AWG solid • Color: yellow

161218: T-6
- 16-26 AWG stranded • Color: red

Part No.	Product No.	Description	1	10
161200	ID45-120	T-5 10-18 AWG	$13.95	$11.49
161218	ID45-121	T-6 16-26 AWG	13.95	12.95

Premium T5 & T6 Wire Strippers

All the benefit of the standard stripper shown above, plus:

161226 161234

- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W

161226: T-5
- 10-18 AWG solid

161234: T-6
- 16-26 AWG stranded

Part No.	Product No.	Description	1	10
161226	ID45-215	T-5 10-18 AWG	$15.95	$14.49
161234	ID45-216	T-6 16-26 AWG	15.95	14.49

7-in-1 Hand Tools

18796

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Crimping tool
- Scale: mm and inch
- Closed lock
- Solderless connector crimper
- Size: 6.6"L x 3.0"W

Part No.	Prod. No.	Description	1	10	25
18796	HT104	10-18AWG	$4.95	$4.49	$3.95
127861	HT1042	16-26AWG	4.95	4.49	3.95
127870	HT1043	22-30AWG	4.95	4.49	3.95

Telemaster Modular Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high quality connectors
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.

Includes: Cut and strip blade

Part No.	Product No.	Description	1	10
161091	ID30-496	Telemaster tool	$41.95	$37.95

Crimping Tool Kit with Stripper

For RJ11 (4 & 6 position) & RJ45 (8 position)

- Spring loaded modular crimping tool for RJ11 and RJ45
- Wire stripper for solid and stranded Cat. 5 wires
- 15 each of RJ11 (4 & 6 position) stranded modular plugs
- 15 each RJ45 (8 position) solid modular plugs
- 15 pieces (3 piece each of black, white, gray, red, blue) rubber boots for modular plugs
- Size (case): 11.0"L x 7.8"W x 2.5"H
- Weight: 2.2 lbs.

SALE

Includes: Black plastic case

Part No.	Prod. No.	Description	1	10
175484	TTK220	Crimping tool kit	$43.95	$39.53

Modular Crimping Tool Set

- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.

Includes: 90 modular plugs, 40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C

Part No.	Product No.	1	10	25
73496	HT2000B	$74.99	$69.99	$64.99

We'll Send It Today

99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W
- Weight: 0.8 lbs.

Includes: Cut and strip blade

Part No.	Product No.	Description	1	10
174684	TTK071	Crimp tool	$29.95	$26.95

Professional Modular Crimping Tool

- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C (Handset)
- Insulated handles
- Size: 8.2"L • Weight: 1.2 lbs.

Part No.	Product No.	1	10	25
181147	HT200	$57.95	$53.95	$48.95

Plastic Modular Crimping Tool

- Crimps 4P, 6P and 8P plugs (4P2C, 4P4C, 6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)
- Size: 8.0"L

SALE

Part No.	Description	1	10	25
116097	RJ11 crimping tool	$11.15	$10.03	$9.02

Metal Modular Crimping Tools

114526

- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- **73091:** Crimps 4P and 6P plugs (4P2C, 4P4C, 6P2C, 6P4C, 6P6C)
- **114526:** Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)

Part No.	Description	1	10	25
73091	RJ11	$17.95	$16.95	$15.95
114526	RJ11/RJ45	19.95	17.95	15.95

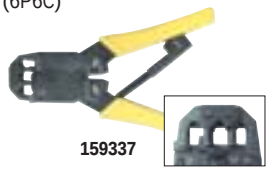
Ratcheted Modular Crimping Tools

159311

- Insulated grip
- Ratcheted type
- Metal

159311:
- 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C)
- Weight: 0.7 lbs.

159337:
- 8.0"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) and handset (4P4C)
- Weight: 1.2 lbs.


159337

Part No.	Description	1	10	25
159311	RJ45/11/12	$21.95	$19.95	$18.95
159337	RJ45/11/12	57.95	53.95	49.95

Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG

- Heavy-duty metal crimping tool with cutter & insulated handles
- For computer pins & sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W

Part No.	Product No.	1	10	25	100
99442	HT202A	$8.49	$7.49	$6.95	$6.29

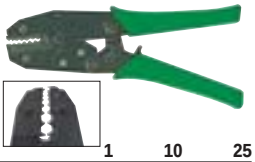
D-Sub Crimping Tool

20-28 AWG

- Crimps D-sub pins and sockets
- For use with P/Ns 43377, 43369, pg 155 and 100765, pg 52
- Size: 7.0"L x 4.0"W

Part No.	Product No.	1	10	25
159265	HT213	$9.95	$8.95	$7.95

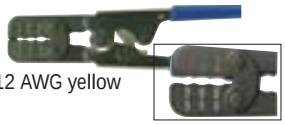
Ratcheted BNC Crimping Tool



- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction
- Size: 8.5"L x 2.5"W
- Weight: 1.1 lbs.

Part No.	Product No.	1	10	25
114534	HT-3019	$19.95	$17.95	$15.95

Terminal Wire Crimping Tool



- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W

Part No.	Product No.	1	10	25
72995	HT303	$15.95	$14.49	$12.95

Telemaster Ratchet Modular Crimp Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 6.0"L x 2.0"W
- Weight: 1.2 lbs.

Includes: Cut and strip blade

Part No.	Product No.	Description	1	10
161103	ID30-696	Ratchet tool	$49.95	$45.95

Ratchet Crimp Tool

For RJ-11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.

Includes: Cut and strip blade

Part No.	Product No.	Description	1	10
174676	TTK070	Ratchet tool	$34.95	$31.49

BNC Hex Crimping Tool

RG58/59/62/142

- Crimps BNC connectors to RG58/59/62/142
- Crimps center pin
- Adjustable grip opening
- Insulated grip handles
- Size: 9.0"L x 2.0"W
- Weight: 1.5 lbs.

Part No.	Product No.	1	10	25
159302	HT106D	$12.95	$11.95	$10.95

IDC Connector Crimping Tool

- Crimpingdistance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 53
- Size: 9.2"L x 3.0"W • Weight: 1.1 lbs.

Part No.	Product No.	1	10	25
73251	HT214	$11.95	$10.95	$9.95

Clip-On Heat Sink

- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W

Part No.	Product No.	1	10	25
159126	HT156	$2.25	$2.03	$1.83

Heat Sink and 7-Piece Soldering Aid Kit

100378: Heat sink absorbs and dissipates heat during soldering and desoldering of sensitive parts

100503 kit contains: Soldering wick, 3 piece scraper set, acid brush, clip-on heat sink and empty squirt bottle

Part No.	Description	1	10	50
100378	Heat sink	$.69	$.59	$.49
100503	Soldering kit	4.95	4.49	3.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Impact Punch-Down Tool

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade

175071

175089

175071: Punch-down tool with blade
- For 66-type terminals
- Size: 5.2"L x 1.5"W x 1.0"H

175089: Punch-down blade
- Blade for 110-type terminals

Part No.	Description	1	10
175071	Tool w/ 66 blade	$39.95	$36.95
175089	Punch-down blade 110	9.95	9.49

T-Handle Reamer Tool

Excellent for aluminum chassis work

- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Size: (handle) 3.3"L; (tool) 5.3"L

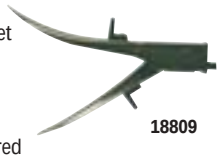
Part No.	Description	1	10	25
151749	Reamer tool	$8.59	$7.79	$6.95

Pocket Swivel Deburring Tool

- Swivel deburring tip rotates to match burred surface with only slight pressure
- Heat treated alloy steel blade
- Pen type for pocket convenience
- Aluminum handle • Size: 5.5"L

Part No.	Description	1	10	25
172902	Deburring tool	$3.99	$3.69	$3.49

Nibbling Tool


18809

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required
- Size: 7.8"L

Part No.	Prod. No.	Description	1	10	25
18809	HT204	Nibbling tool	$8.95	$7.95	$6.95
29330	HT204B	Replacement bit	3.95	3.49	2.95

Coaxial Cable Stripper

- Strips RG58, 59 and 62 cable
- Replaceable blades
- Size: 4.2"L x 0.8"W

Part No.	Description	1	10
73066	3 bladed coax cable stripper	$12.95	$11.65

2-Piece Electronic Inspection Set

- Bent mirror tool (0.1"Dia. x 6.8"L) – for visual inspection
- Sharp metal pick (0.1"Dia. x 6.0"L) – great for PCB re-work

Part No.	Description	1	10
72514	Electronic inspection set	$4.25	$3.82

Automatic Center Punch Tool

Adjustable

- Precision instrument
- Knurled steel body
- Alloy steel point
- Size: 5.0"L x 0.5"Dia.

Part No.	Description	1	10	50	100
160282	Cntr punch tool	$5.95	$5.49	$4.95	$4.49

Impact Punch-Down Tool

With #66 Blade

159134

133161

SALE

- For seating wire into terminal blocks or to cut off wire end after terminated
- Frame made of polyacepal resin with fiber glass
- Adjustable impact pressure control
- Storage in handle for spare blade
- Compatible with P/N 133161 (#110 blade)
- Size: 6.8"L x 1.2"W x 1.1"H

Note: *not compatible w/ Harris Dracon and Paladin blades*

Part No.	Product No.	1	10	25
159134	HT314	$19.75	$18.06	$16.25
133161	HT14B (#110 blade)	7.25	6.50	5.85

Economy Non-Impact Punch-Down Tool

SALE

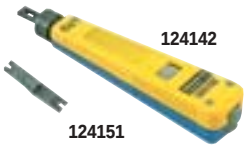
133153
133161

- Terminates 66-type bifurcated terminals
- Reversible blade – one end terminates and the other terminates & cuts the wire
- Handle made of polyacepal resin and fiberglass
- Handle size: 5.6"L x 1.2"W x 1.1"H

Part No.	Description	1	10	25
133153	Tool w/ blade	$12.25	$11.03	$9.92
133161	#110 blade	7.25	6.50	5.85

Impact Punch-Down Tool

Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.


124142
124151

- One-year warranty

124142: For 66-type bifurcated terminals
- Size: 7.0"L x 1.4"W x 1.1"H

124151: Blade for 110-type terminals

Part No.	Description	1	10	25
124142	Tool w/ blade	$54.95	$49.95	$44.95
124151	#110 blade	16.95	15.49	13.95

6-Step Drill Tool

3/16" to 1/2"

Drill multiple holes in thin material with the same bit, faster and easier. Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick. No center punching on most sizes. Made of high-speed steel.

- Drill size: 3/16" to 1/2"

Part No.	Description	1	10	25
172401	Step drill	$9.95	$8.95	$7.95

Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.

Shown w/ drill (26702) & stand (26711)

Part No.	Description	Wt. (lbs.)	1	10	25
26702	MS398 drill	0.8	$29.95	$26.95	$23.95
26711	MS399 stand	1.8	19.95	17.95	15.95
159054	6-pc engraving bits set		7.85	7.05	—

9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .126"
- Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

Part No.	Description	1	10	50
131676	9-piece drill bit kit	$9.95	$8.95	$7.95

PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Use for drilling holes in glass PC boards
- Shank diameter: .125"

SALE

Part No.	Drill Dia.	No.	Application	1	10	100
16619	.021"	75	Miscellaneous	$1.49	$1.19	$.75
16580	.040"	59	Plated thru holes	1.75	1.27	.79

Engraving Tool with Battery Pack

- Ideal for light engraving work
- Size: 6.5"L (with tip)

Requires: 4 AA batteries or wall transformer (P/N 147707, below)

Includes: Diamond tip capable of engraving any surface

152506

159054

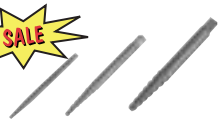
SALE

Part No.	Description	1	10
152506	Engraving tool	$15.95	$12.95
151087	AA batteries	.39	.32
147707	6VDC wall transformer	5.95	5.35
159054	Replacement tips (6 pcs.)	7.85	7.05

3-Piece Extractor Tool Set

1/16" to 17/64" Dia.

SALE



- Used for extracting screws and bolts
- Drill appropriate size hole in stub and extractor then turn counterclockwise
- Extractor sizes: #1 (1/16"-1/8"); #2 (3/32"-11/64"); #3 (1/8"-17/64")

Part No.	Description	1	10	25
171192	3 pc. ext. tool set	$2.09	$1.86	$1.67

Vac Tweezers

Pick and place small parts of all kinds; glass slides, coins, optics, SMDs, film, etc.

- Size: 2.9"L x 0.6"W
- One-year warranty

Includes: 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips

Part No.	Description	1	10
88268	Vacuum pick & place kit	$32.95	$29.65

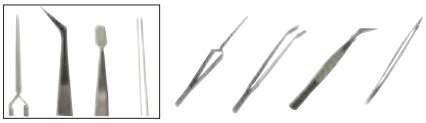
Stainless Steel Precision Tweezer

- Acid-resistant
- Non-magnetic
- Size: 6" long

SALE

Part No.	Description	1	10	50
148831	Straight tweezer	$1.45	$1.29	$1.16

4-Piece Steel Tweezer Set

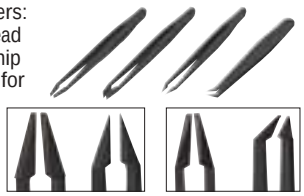


- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

Part No.	Description	1	10	25
10735	4-piece tweezer set	$5.95	$4.95	$3.95

4-Piece Conductive SMD Tweezer Set

- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip
- Each is 4.5" long



Part No.	Description	1	10	25
172638	4-piece tweezer set	$10.95	$9.85	$8.85

PLCC Surface Mount and DIP IC Extractors

16766

16838

- Size: 4.0"L x 2.0"W (both)

16838: DIP IC extraction tool
16766: PLCC IC extraction tool

Part No.	Product No.	1	10	100
16838	HT103A	$1.39	$1.19	$1.09
16766	HT103B	4.49	3.95	3.49

IC Pin Straightener

Straighten bent pins safely and easily with Jameco's IC pin straightener.

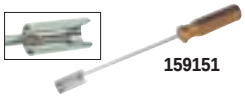
- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Color/materials: black plastic
- Size: 3.3"L x 1.5"W x 0.4"H

Includes: Ground terminal

Part No.	Description	1	10	100
99362	IC straightener	$5.95	$5.35	$4.95

BNC Connector Removal Tools

- For deep chassis removal
- Allows access to hard-to-reach places



159151

Part No.	Prod. No.	Size	1	10	25
159151	HT2206	6"L	$9.95	$8.95	$7.95
152047	HT2212	12"L	12.95	11.65	10.45

Trimmer Potentiometer Adjustment Pocket Tool

- Glass filled body
- Stainless steel blade
- Color: black
- Size: 5.2"L

Part No.	Description	1	10	100
153314	Trimmer tool	$1.19	$.99	$.89

4-Piece TV/Radio Alignment Tool Set

SALE

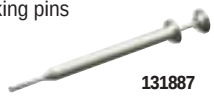
- Flat screwdriver function and hex

Includes: 4 plastic alignment tools with multiple functions

Part No.	Product No.	Description	1	10
99637	ATS606	4 piece tool set	$2.55	$2.26

Crimp Pin Extraction Tools

- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design
- Length: 5"



131887

Part No.	Product No.	Description	1	10
131887	HT319C	Male tool for 42729	$7.95	$6.99
131879	HT319B	Female tool for 42649	7.95	6.99

D-Sub Pin Insertion/ Extraction Tool

- Insertion/extraction tool: red/white plastic body; exchangeable tips

Part No.	Description	1	10	100	1000
19094	Tool	$2.95	$2.49	$1.95	$1.49

Toll-Free Technical Support
Just call us at 1-800-831-4242
or email us at
Tech@Jameco.com

Part Number Color Code
New Sale Refurbished Closeout

Heavy Duty 3X Magnifying Lamps

- 45" extension arm
- Supplied with 22 watt Circuline tube
- New wire clip design permits easy installation
- Power requirement: 110VAC/60Hz
- 3X magnification
- Weight: 7.3 lbs.

Part No.	Description	1	10	25
100829	Black lamp	$62.95	$56.95	$49.95
149981	White lamp	60.95	55.95	49.95

Standard Adjustable 3X Magnifying Lamp

- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- 3X magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.

Part No.	Description	1	10	25
22710	Magnifying lamp	$29.95	$26.95	$23.95

Precision 5X Magnifying Lamp

With an arm that extends to 40" long, adjustable to any direction or angle, and 5X magnifying glass with built-in light, this is the perfect tool to help identify small electronic components, and magnifying a printed circuit board to help you solder electronic components to.

NEW

- 5" diameter lens
- Uses 22W circuline fluorescent bulb
- Power requirement: 110VAC/60Hz
- Weight: 7.1 lbs.

Part No.	Description	1	10	25
197456	Magnifying lamp	$89.95	$80.95	$72.85

3X Magnifier with Adjustable Stand

- Heavy duty steel base
- Size: 15"L (full stand) x 4"Dia. (base)

Part No.	Description	Wt. (lbs.)	1	10
148881	Magnifier	2.5	$11.95	$10.95

General Purpose Illuminated 3X Magnifier

- 3X power
- 75mm diameter lens
- Great for magnifying fine print
- Light requires 2 AA batteries, see below
- Size: 7.5"L x 3.75"Dia.

Part No.	Description	1	10	25
149542	Illuminated magnifier	$4.49	$3.95	$3.49
151087	1.5V AA battery	.39	.32	.25

Photon Micro-Light Keychains

163248 163256 163264

- Shines astonishingly bright
- Lights any path
- Micro size (same weight as a quarter)
- Visible for more than a mile
- Lifetime warranty

Includes: Lithium battery

Part No.	Description	1	10
163248	Red Micro-Light® keychain	$17.95	$15.95
163256	White Micro-Light® keychain	17.95	15.95
163264	Blue Micro-Light® keychain	17.95	15.95

Black Desk Lamps

SALE

159951 159960

- Ventilated metal shade
- Double shade reduces glare
- Max. bulb size 60W (not included)
- Power requirement: 110VAC/60Hz
- Rotating on-off switch

159951: Lamp
- Base size: 5.5" diameter
- Height: 16.0" • Weight: 2.5 lbs.

159960: W/ organizer (for pens & paper clips)
- Base size: 7.1"H x 4.2"W
- Height: 15.0" • Weight: 2.0 lbs.

Part No.	Description	1	10
159951	Desk lamp	$3.95	$3.49
159960	Lamp w/ organizer	3.95	3.49

AC On/Off Timer

Deters theft! Turns lights on and off when you're not home!

SALE

- One on/off setting
- Input voltage: 125VAC/60Hz
- 10A contact rating • Color: beige
- Size: 2.6"W x 1.9"D x 3.8"H

Part No.	Description	1	10	50
78553	Timer	$.55	$.48	$.45

Troubleshooting & Repairing Consumer Electronics Without a Schematic

TAB Publishing Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

- Size: 7.4" x 9.3" • Weight: 1.1 lbs.

Part No.	Description	1	10
136080	Consumer Electronics	$19.95	$17.95

"We're here to provide the support you want!"

- 30-day Money Back Guarantee
- Same Business Day Shipping Until 6:00 p.m. EST
- Low Price Guarantee
- Order 24/7/365 Days

Professional Tool Case

- Aluminum framed
- Padded interior and adjustable dividers (6 sections)
- Detachable tool organizer for easy access
- Color: black with aluminum trimmings
- Size: 18"L x 13"W x 6"H
- Weight: 8.1 lbs.

Part No.	Description	1	10
149016	Professional tool case	$41.95	$37.95

8-Piece IC Insertion and Extraction Tool Kit

- Six IC insertion tools for: 8, 14/16, 18/20, 22, 24/28 and 32/40-pin ICs
- Universal extraction tool with insulated handle
- Black vinyl carrying case with zipper
- Size: 7.8"L x 5.0"W x 1.5"H • Weight: 0.6 lbs.

Part No.	Description	1	10	25
104707	Insert/extraction kit	$16.95	$15.95	$14.95

15-Piece Computer Service Tool Kit

- 8 and 20-pin IC inserters
- IC extractor
- Screwdriver handle with 3.75" extender and adapters: 3 Phillips: #0, #1 #2; 3 slotted: 1/8", 3/16", 1/4"; 2 nut drivers: 3/16", 1/4"; 2 TORX: T-10, T-15
- 2 tweezers: straight, angled
- Probes: logic & voltage ±
- Anti-static wrist strap
- Black vinyl carrying case
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.9 lbs.

Part No.	Description	1	10	25
14171	Computer tool kit	$24.49	$22.05	$19.85

20-Piece SAE Computer Tool Kit

- 30W soldering iron
- 6' solder
- 8" wire cutter/stripper
- 5" needle nose pliers
- 6" adjustable wrench
- 3 slotted screwdrivers (1/4", 3/16" and 1/8")
- 3 Phillips screwdrivers (#0, #1 and #2)
- 2 nut drivers (1/4" & 3/16")
- Chip extractor
- Reversible TORX screwdriver (T10/T15)
- Tweezers/pincher
- Clamping tweezers
- 3-pronged parts retriever • Spare parts tube
- Flashlight with battery • Heavy duty molded case
- Size: 11.9"L x 9.2"W x 2.0"H • Weight: 3.5 lbs.

Part No.	Description	1	10	100
170966	Computer tool kit	$24.95	$22.49	$19.95

Electronic Technician Tool Kits for Every Need!

51-Piece Tech Tool Kit

Essential Kit for Electronic Machine Maintenance and Repair Jobs!

See matrix below for list of tools. Also includes digital multimeter. Case features removable pallets, a combination lock and a cushioned, black plastic handle.

- Size: 12.5"L x 17.5"W x 3.5"H
- Weight: 10.4 lbs.

Part No.	Description	1	5	10
26681	51-piece tool kit ..	**$99.95**	**$89.95**	**$80.95**

55-Piece Tech Tool Kit

An assortment of tools for general and precision work for technicians, engineers, students, etc.

- In addition to the tools listed in the matrix below, the kit includes:
  - screwdriver handle
  - 6 piece mini-hammer set
  - 5 piece of double edge blade
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (see pages 118-118)
- Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.

Part No.	Description	1	5	10
136311	55-piece tool kit	**$129.95**	**$116.95**	**$105.95**

66-Piece Tech Tool Kit

Kit for Field Technicians and Engineers!

Aluminum case features removable pallets, surface-type locks, a black plastic handle, side buckles and a strap.

- In addition to the tools listed in the matrix below, the kit includes:
  - mini vacuum cleaner
  - cassette head cleaning fluid
  - keyboard/monitor spray cleaner
  - long nose pliers with cutter
  - digital multimeter
  - hobby vice
- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.

Part No.	Description	1	5	10
105646	66-piece tool kit	**$185.95**	**$169.95**	**$159.95**

69-Piece Tech Service Tool Kit

- In addition to the tools listed in the matrix below, the kit includes:
  - 40 pc. socket pack
  - 6" side cutter
  - carpenter hammer
  - 6" long nose plier
  - 6" slip joint plier
  - solder wick
  - 3 piece trimmer set
  - stainless steel spring hook
  - 8" combination plier
  - 2 removable pallets
- Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.

Part No.	Description	1	5
149024	69-piece tool kit	**$229.95**	**$205.95**

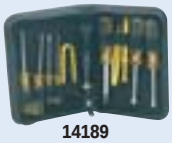
Quick-Reference of Special Tool Kit Contents

Parts included in kits	26681	136311	105646	149024
3-piece soldering aid kit	1	1	1	1
3-prong holder		1	1	1
5-way crimping tool		7-way	1	1
6 precision screwdrivers	short	1	long	1
7-piece hex key wrench	1	1		1
10-foot measuring tape	1			1
10-piece mini wrench set			1(SAE)	1
30-watt soldering iron	1	1	1	1
Adjustable wrench	1	1	1	1
Anti-static strap		1	1	1
8" lineman's pliers		1	1	
Bent needle nose pliers	1	1		1
Brush	1	1	1	1
Carrying case	1	1	1	1
Desoldering pump	1	1	1	1
Diagonal cutting pliers	1	1	1	1
Electrical test screwdriver			1	
Electrician's tape	1		1	1
Flat nose pliers	1	1	1	1
Forceps				1
Heat sink		1		1
Heavy-duty utility knife	1	1	1	
IC extractor		1	1	1
Inspection mirror				1
Mini drill			1	1
Mini flashlight		1	1	1
Needle files	2	5	5	5
Needle nose pliers	1	1	1	
Precision wire stripper				1
Rosin core solder	1	1	1	1
Screwdriver set (*Pro-soft)	10-pc	2-pc	13-pc	9-pc*
Snipe nose pliers				1
Soldering stand	1		1	
Stainless steel scissors	1		1	
Tweezers	1	2	1	
Utility components box	1		1	1
Total Pieces	51	55	66	69

We'll Send It Today! 99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Lightweight Computer-Service Tool Kits

167206



14189

Contained in both kits:
- 2 Slotted screwdrivers: 1/8", 3/16"
- 2 Phillips screwdrivers: #0, #1
- 2 Nut drivers: 3/16", 1/4"
- Tweezers
- 3-claw parts holder
- 14-40 pin IC extractor
- Black vinyl carrying case

167206: 11 Piece Tool Kit
- T-15 TORX screwdriver
- Clear components tube holder
- Size: 8.5"L x 5.9"W x 1.3"H • Weight: 1.1 lbs.

14189: 12 Piece Tool Kit
- Reversible handle with T10/T15 TORX bit
- 14-16 pin IC inserter/straightener
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.2 lbs.

Part No.	Description	1	10	25
167206	11-piece tool kit	**$12.95**	**$11.49**	**$9.95**
14189	12-piece tool kit	**14.95**	**13.49**	**11.95**

26-Piece SAE Hobby Tool Set

- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 and #2 Phillips bits
- #1 and #2 pozi bits
- 3/16" and 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 TORX bits
- Driver handle
- 3" extension bar for 1/4" drive
- Tweezers
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Compact carrying case
- Weight: 1.5 lbs.
- Size: 12.0"L x 9.0"W x 2.0"H

Part No.	Description	1	10	25
170069	26 pc. SAE tool set	**$14.95**	**$12.95**	**$10.95**

26-Piece Metric Hobby Tool Set

- 6 screwdrivers: Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12"
- 10 bits: 5mm, 6mm, #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Stainless steel tweezers
- Sockets: 5, 6, 8, 10mm
- Extension bar
- Handle
- 4" long nose pliers
- 4" side cutter
- Plastic carrying case
- Weight: 1.2 lbs.
- Size: 6.4"L x 4.1"W x 2.0"H

SALE

Part No.	Description	1	10	25
99629	26-piece tool set	**$9.95**	**$9.45**	**$8.95**

40-Piece Electronic Tech Tool Kit

- Zipper vinyl case
- Weight: 1.7 lbs.
- Size: 9.5"L x 6.8"W x 1.4"H

Includes: IC inserter w/ pin straightener, IC extractor, extra long 3-claw parts holder, slotted and Phillips screwdriver bits, 6mm-12mm metric nut driver sockets, 3/16"-1/2" S.A.E. nut driver sockets, T10-T25 reversible TORX screwdriver bits, potentiometer alignment tools, adapter bit for sockets, wire cutters and stripper, and pocket clip screwdriver

Part No.	Description	1	10	25
119183	40-piece tool kit	**$19.95**	**$17.95**	**$15.95**

Part Number Color Code
New Sale Refurbished Closeout

Protective Coiled Grounding Wrist Strap

- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black

Includes: 1MΩ resistor for added safety

Part No.	Description	1	10	100
34551	Anti-static strap	$6.95	$5.95	$4.95

Wrist Strap for Static Protection

3M

- Rubberized wrist strap for comfort
- 1MΩ resistance for static dissipation
- Length: 5'
- Coiled cord with a banana plug and alligator clip
- Zipper-style mechanism adjustable to any size wrist

Part No.	Description	1	10	100
159257	Adjustable strap	$7.95	$6.95	$6.25

Anti-Static Heel Strap

- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L

Part No.	Description	1	10
100327	Heel strap	$8.95	$7.95

Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.

168508

- Color: gray

Includes: Grounding clip

Part No.	Dimensions	Wt. (lbs.)	1	10	100
10575	11.3" x 22"	0.7	$8.95	$7.95	$6.95
10583	19.5" x 23.5"	1.1	11.95	10.49	9.95
168508	24" x 28"	1.8	14.95	13.49	11.95

Anti-Static Field Service Kit

This kit provides all the basic items needed to create a static-safe work environment for field service work. The kit includes a 3M adjustable Wrist Band 2204, ground cords, and a static-dissipative work surface.

3M

Part No.	Description	1	10
159994	8506 Field service kit	$38.95	$34.95

Anti-Static Touch Pad

- Pad has 1MΩ of resistance
- Coiled ground strap with removable alligator clip, 6'L
- Color: blue
- Size: 15.0"L x 0.5"W

Part No.	Prod. No.	Description	1	10
20327	JE1215	Anti-static pad	$3.95	$3.49

Conductive Anti-Static Foam and Bags

Don't get zapped!

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.

13864

78668

- For safe storage of static sensitive devices

13864: 24.0"L x 12.0"W x 0.3"H

Part No.	Description	1	10	100
13864	Anti-static foam	$7.95	$6.95	$5.95
78668	4 x 6 anti-static bags	.25	.22	.19
78650	8 x 10 anti-static bags ...	.49	.44	.39

STATICO ESD Common Point Grounding Cord

- 15 ft. long table mat/wrist strap common point grounding cord
- One end provides a 3/8" (10mm) female socket which snaps onto the ESD mat and two wrist strap banana connection receptacles, one for operator and one for guest
- No.10 ring terminal at the other end furnishes the means for ground connection

Part No.	Product No.	Description	1	10
176137	S1030NRF	Grounding cord ..	$11.95	$10.49

STATICO Dual Wrist Strap Grounding Block

- Provides two grounding points for wrist straps
- 15 ft. long green cord for direct path to ground
- Wrist strap cords can be snapped on to the two male snaps provided, while the operator is away from the work bench

Includes: An extra No. 10 ring terminal for alteration

Part No.	Product No.	Description	1	10
176145	S1045	Grounding block	$13.95	$12.49

Third Hand

72864

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: P/N 26690: 0.7 lbs.; P/N 72864: 1.4 lbs.

Part No.	Description	1	10	50
26690	Third hand	$4.95	$4.49	$3.95
72864	W/ soldering holder	6.95	6.25	5.59

Clamp Vise

- Lightweight, sturdy construction
- Nylon jaws open 2"
- Ball cup allows vise to adjust to any angle
- No tools needed – finger turn to tighten
- Size: 10.0"L x 2.5"W • Weight: 2.1 lbs.

Part No.	Description	1	10
127167	Clamp vise	$19.95	$17.95

KYTRONIC Plastic Pump Bottle

- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover

Part No.	Description	1	10	50
158131	Pump bottle	$9.95	$8.95	$7.95

Weller® 50-Watt Controlled Output Soldering Station

ESD Safe

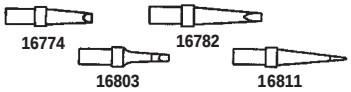
- 50 watts of controlled power
- Temperature lockout prevents raising of temperature to high levels
- Temperature calibration allows user to reset temperature to match tip styles and sizes
- Quick heat-up and temperature recovery
- Temperature range: 350˚F - 850˚F (177˚C - 454˚C)
- Accuracy within 9˚F (5˚C) • Automatic shut-off
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.2 lbs.

Part No.	Prod. No.	Description	1	10
166879	WES50	Soldering station	$119.95	$109.95

Weller® Soldering Tips

Replacement Tips for WES50

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered



16774 16782 16803 16811

Part No.	Prod. No.	Description	1	10
16774	ETA	Screwdriver 1/16"	$6.95	$6.25
16782	ETJ	Long screwdriver 1/32" ..	6.95	6.25
16803	ETR	Narrow screwdriver 1/16"	6.95	6.25
16811	ETS	Long conical 1/64"	6.95	6.25

PANAVISE Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs. • One-year warranty

Part No.	Product No.	Description	1	10
27131	M381	Vacuum vise	$59.95	$53.95

PANAVISE Electronic Work Center

- Circuit board holder, standard base, tray base mount, solder station, sponges, and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty

Part No.	Description	1	10	25
27060	Electronic center ...	$79.95	$69.95	$64.95

PANAVISE PVjr. Vice

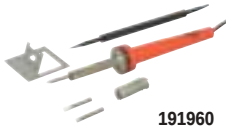
- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350˚F
- Vertical/horizontal jaw grooves
- Fine/course adjusting knob
- The vise neck tilts, turns and rotates • Vise height: 6.8"
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs. • One-year warranty

Part No.	Description	1	10
134439	Jr. vice w/ mountable base	$19.95	$18.95

Weller® Light-Duty 23-Watt Soldering Iron & Kit

152872

- Ideal for hobby or electronics kit work
- 1/8" removable tip
- 120VAC @ 60Hz
- Additional tips can be special ordered
- Length: 8"


191960

191960: Includes lighted soldering iron, MT1 (cone shaped), MT2 (screwdriver), MT3 (chisel) 1/8" tips, lead free solder and soldering aid tool • Weight: 2.0 lbs.

189384/191978/191986: 2 pack

Part No.	Description	1	10	25
152872	Iron only (SP23L) ..	**$14.95**	**$13.49**	**$11.95**
191960	Iron kit (SP23LK)	**16.95**	**15.25**	**14.95**
189384	1/8" cone tip (MT1) ...	**4.95**	**4.49**	**3.95**
191978	1/8" scrdrvr tip (MT2)	**4.95**	**4.49**	**3.95**
191986	1/8"chisel tip (MT3) ...	**4.95**	**4.49**	**3.95**

Weller® 40-Watt Soldering Iron

170561

- 120VAC @ 50/60Hz
- Develops 900˚F / 482˚C of heat
- MT10 1/4" / 10mm diameter replaceable nickel plated copper tip
- Stainless steel barrel • Length: 8.25"
- Heat and impact resistant handle
- Weight: 0.27 lbs.

Part No.	Prod. No.	Description	1	10
170561	SP40L	40W solder iron	**$17.95**	**$15.95**
188980	MT10	1/4" chisel tip 2 pk	**7.95**	**6.95**

Weller® 100-Watt Soldering Iron

- 120VAC @ 60Hz input
- Uses the Weller® "closed loop" method of controlling maximum tip temperature
- Portable line voltage iron – no base station required
- Temperature controlled by the tip
- Nominal heat-up time with 700˚F tip is 110 seconds
- Length: 6"
- Weight: 0.7 lbs.

192081

Includes: CT6F7 (0.375" screwdriver tip; 700˚F)

Part No.	Prod. No.	Description	1	10
192081	W100PG	Solder iron	**$62.95**	**$56.95**
192090	CT6F7	.375" scrwdrvr tip	**9.95**	**8.95**

Modern Electronics Soldering Techniques Book

Prompt Publishing Learn the art of electronics soldering. The author goes beyond the basic aspects of soldering and thoroughly discusses other key areas of electronics technology such as correct handling and identification of components. Also covered is the art of reading, converting schematics and improving your knowledge of test concepts. (293 pages, 2001)

Part No.	Description	1	10
185498	Modern Electronics	**$24.95**	**$22.49**

Weller® Professional 25 & 35-Watt Soldering Irons

170587

- 120VAC @ 60Hz
- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar • Length: 9"

Includes: 3-conductor power cord

Part No.	Product No.	Description	1	10
170587	WP25	25W solder iron	**$34.95**	**$31.95**
192102	WP35	35W solder iron	**41.75**	**37.59**
192153	PH25	Solder iron stand	**16.95**	**15.25**
192111	PH60	Soldering stand	**20.49**	**18.44**

Weller® 40-Watt Soldering Station

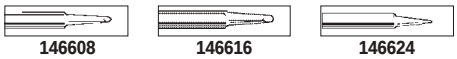
- 40 watt,120V @ 60Hz
- Lighted on/off switch
- Adjustable power from 5 watts - 40 watts
- Temperature is electronically controlled from 350°F to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Product No.	Description	1	10
146595	WLC100	Soldering station	**$49.95**	**$44.95**

Weller® Soldering Tips

Replacement Tips for WLC100, WP25 and WP23


146608 146616 146624

Part No.	Product No.	Description	1	10
146608	ST1	Screwdrvr tip 1/16"	**$5.95**	**$5.35**
146616	ST3	Screwdrvr tip 1/8"	**5.95**	**5.35**
192129	ST4	Scrwdrvr tip .187" ..	**4.95**	**4.49**
192137	ST5	Flat tip .031"	**4.95**	**4.49**
192145	ST6	Scrwdrvr tip .031" ...	**4.95**	**4.49**
146624	ST7	Conical tip 1/32"	**5.95**	**4.95**

Weller® 42-Watt Controlled Output Soldering Station

- 120VAC @ 60Hz input
- Transformer powered soldering station complete with macro style, low voltage, temperature controlled soldering iron
- Closed loop method of controlling maximum tip temperature – for protection of temperature sensitive components
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord • Uses PT series tips
- Size: 5.9"L x 4.5"W x 3.6"H
- Weight: 4.0 lbs.

Part No.	Prod. No.	Description	1	10
170552	WTCPT	Solder station	**$149.95**	**$134.95**
192161	TC201T	Replac. iron	**68.95**	**62.05**
192170	PTA6	.062" screwdriver tip (600˚F)	**6.95**	**6.25**
192188	PTA7	.062" screwdriver tip (700˚F)	**5.69**	**5.15**
192196	PTA8	.062" screwdriver tip (800˚F)	**5.69**	**5.15**

Weller® 40-Watt Digital Soldering Station

- 120VAC @ 60Hz input
- Microprocessor controller for accuracy & dependability
- Digital LED display allows you to read temperature setting and actual tip temperature – accuracy for most demanding applications
- Temperature accuracy: calibrated to ±9°F
- Temperature stability: ±10°F
- ESD safe to protect sensitive components
- Irons fitted with non-burnable silicon rubber cord – prevents cord from being compromised
- Quick disconnect plug for soldering iron and lighted on/off switch
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.5 lbs.

Includes: EC1201A 40W soldering iron

Part No.	Prod. No.	Description	1	10
191994	EC2002M1	Solder Station	**$339.95**	**$305.95**

Weller® 40-Watt Analog Soldering Station

- 120VAC @ 60Hz input
- Electronically controlled station: temperature accuracy calibrated to ±9˚F; temperature stability to ±10˚F
- ESD safe to protect sensitive components
- Irons fitted with non-burnable silicon rubber cord – prevents cord from being compromised for your protection
- Quick disconnect plug for soldering iron and lighted on/off switch
- Use ET series tips on page 102
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.5 lbs.

Includes: EC1201A 40W soldering iron

Part No.	Prod. No.	Description	1	10
192006	EC10021	Solder station	**$249.95**	**$224.95**

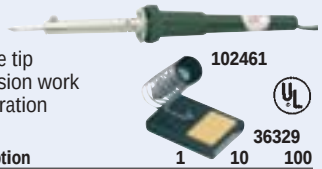
Weller® 80-Watt Digital Soldering Station

- 120VAC @ 60Hz
- Immediate heat from the combination of a unique silver heating element and tip configuration – allows faster more efficient soldering
- Temperature range: 150˚ to 850˚F
- Temperature accuracy: calibrated to ±9˚F
- Temperature stability: ±10˚F
- Controlled power allows you to work on high-mass components and boards
- Automatic tool recognition – no need to change settings when using different Weller accessories
- Fast recovery and minimal temperature loss
- Use LT series tips on page 102
- Size: 6.5"L x 4.5"W x 4.0"H • Weight: 7.0 lbs.

Includes: WSP80 soldering iron w/ 0.094" chisel tip

Part No.	Prod. No.	Description	1	10
192014	WSD80	Solder station	**$349.95**	**$314.95**
192065	LTA	.063" chisel tip	**5.39**	**4.85**
192073	LTB	.094" chisel tip	**5.39**	**4.85**
192049	LTCS	.126" round tip	**5.39**	**4.85**
192031	LTH	.031" chisel tip	**5.39**	**4.85**
192022	LT1	.01" round tip	**5.39**	**4.85**
192057	LTK	.047" chisel tip	**5.39**	**4.85**

30-Watt Soldering Iron and Stand



- 110-120VAC
- UL approved
- 1/4" removable tip
- Ideal for precision work
- One-hand operation
- Length: 8.3"

Part No.	Description	1	10	100
102461	30W soldering iron	$3.95	$3.49	$2.95
116020	Replacement tips (2)	1.95	1.49	.99
36329	Soldering stand	3.49	2.95	2.49

One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.

- Power consumption: 60W
- Interchangeable standard tips
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control
- Ergonomic, lightweight design
- 120VAC
- One-year warranty
- Gun casing size: 7.0"L x 4.0"W • Weight: 2.2 lbs.

Includes: 1.0mm tip

Part No.	Description	1	10	25
129066	Desolder gun	$99.95	$89.95	$79.95
140214	"Y" replacement tip	9.95	8.95	7.95
134594	1.0mm replace. tip	7.95	6.95	5.95
134607	1.2mm replace. tip	7.95	6.95	5.95

Electric and Manual Desolder Pumps

- Easily disassembled for cleaning
- One-hand operation
- Replacement tips available

19254

19166

19254:
- UL listed
- Size: 10.5"L x1.0"Dia.

19166:
- Size: 7.8"L x 0.8"Dia.

Part No.	Description	1	10
19254	Electric desolder pump	$26.95	$23.95
19166	Manual desolder pump	4.95	4.49
22091	2 tips for 19166	3.95	3.49
19262	1 tip for 19254	4.49	3.99

Weller® Universal 100/140-Watt Soldering Gun Kit

- Trigger selectable power
- 7-piece kit: 8200 model soldering gun, soldering tip, sealing tip, cutting tip, coil of lead free rosin core solder, hex wrench, & case

Part No.	Prod. No.	Description	1	10
191951	8200PK	Solder gun kit	$39.95	$35.95

WAHL® Cordless Soldering Irons

The #1 choice for field service soldering!

- 900˚F tip temperature
- Iron performance equivalent to 25 watt iron
- One-year warranty

132775: IsoTip® Quick-Charge Model #7700
- Recharges in 3–4 hours
- Solders continuous up to 20 minutes or 120 joints per charge
- Weight: 1.1 lbs.

132775

132783: IsoTip® Power Pro Model #7904
- Solders 200+ joints or up to 30 minutes of continuous soldering
- Recharges in 3–4 hours
- LED indicator light
- Weight: 1.1 lbs.

132783

Includes: Soldering iron, recharging stand, Ni-Cad battery pack, and tips

Part No.	Description	1	10
132775	Quick-charge cordless iron	$46.95	$42.25
132783	Power Pro cordless iron	64.95	58.49

Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level
- Additional tips can be special ordered
- 2 hours of heat on average tank setting

Includes: soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual

Part No.	Prod. No	Description	1	10
152207	PSI-100K	Tool kit	$79.95	$74.95

Solder Stand

- 12 pc. solder stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft diameter: 0.6"
- Weight: 1.6 lbs.

Solder not included

Part No.	Description	1	10	100
141760	Solder stand	$8.95	$7.95	$6.95

Solder Spool and Iron Stand

- 4 pc. stand (some assembly required)
- Shaft diameter: 0.6"
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L
- Weight: 2.0 lbs.

Solder not included

Part No.	Description	1	10	100
169551	Spool & iron stand	$12.95	$11.95	$10.95

See our selection of Solder & Tip Cleaning Supplies on page 106

Fume Extractors and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high efficiency fan

168268

120150

- Operate continuously providing filtered air
- Air flow: 115 CFM
- Compact size allows use on work bench with minimum space
- 120VAC, 60Hz, 22 watt
- On/off power switch
- Aerodynamic hood design for effective removal of solder fumes
- Noise: 49dB fan
- Fuse protected
- Static ground jack
- Removable carbon- impregnated filter
- One-year warranty

168268: • High carbon plastic case
- Size: 8.5"W x 5.0"D x 8.0"H • Weight: 4.2 lbs.

120150: • Black anodized aluminum case
- Size: 6.4"W x 4.6"D x 7.9"H • Weight: 4.6 lbs.

Includes: Detachable power cord

Part No.	Description	1	10	25
168268	Fume ext. (ESD safe)	$59.95	$53.95	$49.95
120150	Fume extractor	79.95	71.95	64.95
127183	Replace. filters (2/pk)	9.95	8.95	7.95

Combination 42-Watt Soldering Station and Fume Extractor

- Power consumption: 42W @ 650˚F (soldering iron)
- Adjustable knob for temperature control (temperature range: 250˚ to 430˚C; (500˚ to 800˚F)
- Stability @ idle: ±5˚C (9˚F)
- Maximum air volume: 95/115CFM
- Electronic zero-voltage switching
- LED indicator for pilot light and lighted on-off switch
- Size: 6.4"W x 7.8"H x 4.7"D
- Input voltage: 100/120VAC @ 60Hz
- Weight: 5.2 lbs.

Includes: Soldering iron, soldering holder, sponge, carbon activated filter, power cord and manual

Part No.	Product No.	1	10	25
183169	456DLX	$129.95	$116.95	$105.29

CHIPQUIK SMD Removal Kit

- Quick and easy to use
- Uses simple equipment and materials for application and clean-up
- Potential damage to printed circuit boards is eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins

Part No.	Description	1	10
141305	SMD removal kit	$20.95	$18.86

30-Day Money-Back Guarantee
If you're not satisfied we'll take it back!
Details on page 185

Analog Display Soldering Station

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

SMD Tip Below

114569

183177

- Electronic temperature control from 300°F to 850°F
- Zero-voltage thyristor switching protects voltage and current sensitive devices such as CMOS ICs against voltage spikes
- Power-on and Heater-on LED indicators
- Power consumption: 60 watts
- Size: 4.3"W x 6.0"D x 3.4"H • Weight: 4.1 lbs.

Includes: One 1/16" tip (P/N 35115 – below)

Part No.	Product No.	Description	1	10	25
114569	XY1683C	Analog display station	$89.95	$79.95	$72.95
183177	XY960A	Analog display station	99.95	89.95	79.95
134640	SP815	Replacement sponge for P/N 114569	2.79	2.49	2.25
134631	SP715	Replacement sponge for P/N 183177	2.79	2.49	2.25

Digital Display Soldering Station

ESD Safe!

The XY960-ESD Digital Display Soldering Station is designed for soldering situations where precise temperature is required for sensitive components.

168401

- Easy to read .560"H 3-digit LED readout
- Temperature is maintained at ±6°F tolerance of the set temperature
- Electronic temperature control from 200°F to 878°F
- External calibration port
- Zero-voltage thyristor switching protects voltage and current sensitive devices such as CMOS ICs against voltage spikes
- Power-on and Heater-on LED indicators
- Power consumption: 60 watts
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115 – below)

Part No.	Product No.	Description	1	10	25
162456	XY960D-ESD	Soldering station with ESD	$109.95	$99.95	$89.95
168401	TWZ50ESD	SMD tweezer iron	69.95	62.95	56.95
168583	46-060102	Tip .078" for P/N 168401	10.95	9.95	8.95
168591	46-060115	Tip .590" for P/N 168401	11.95	10.95	9.95
134631	SP715	Replacement sponge for P/N 162456	2.79	2.49	2.25

Desoldering Station & Combo Soldering/Desoldering Station

125508 (Desolder Station)
Size: 9.2"L x 7.2"W x 3.6"H

- **125508**: Digital Fahrenheit/Centigrade read out
- **125516**: Anti-Clog/Energy Saver
- Maintenance free, quiet operation
- Simple fine tune feature to select 300–850˚F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- Spike control feature protects current sensitive components such as CMOS ICs
- Rapid heat-up/recovery design sensor monitors tip to detect extremely small temperature deviations • One-year warranty
- Replacement sponge for P/N 125516 – see above (P/N 134631)
- **125508** includes 1.2mm dia. conical tip; **125516** includes 1/32" conical tip

125516 (Combo Solder/Desolder)
Size: 11"L x 10"W x 4"H

Part No.	Product No.	Description	Wt. (lbs.)	Price
125508	XY968D	Desoldering station	13.1	$299.95
125516	XYT988	Soldering/desoldering station	18.1	399.95

Temperature Controlled Soldering Station

Grounded Soldering Tip

156785

- Thermal control adjustable from 250˚C to 450˚C (500˚F to 850˚F)
- Temperature controlled hand soldering
- Insulated ceramic heating element for rapid heat-up and heat recovery • Fully grounded
- Heater insulation exceeds 100MΩ
- Ergonomic mini handle
- Soldering handle is attached to the base with silicone rubber grounded power cord
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation
- Size: 7.0"L x 4.5"W x 3.5"H • Weight: 2.5 lbs.

Includes: Manual and 1.2mm diameter conical tip

Part No.	Product No.	Description	1	10	25
156785	XYT379	Soldering station	$59.95	$53.95	$48.95
156814	44-510601	Sharp conical 1/32" tip	4.49	3.95	3.75
156822	44-510604	Chisel conical 1/16" tip	4.49	3.95	3.75
134631	SP715	Replacement sponge for P/N 156785	2.79	2.49	2.25

SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- 120VAC • Max. temp.: 760˚F
- Heater insulation exceeds 100MΩ
- Heater power consumption: 35W x 2

168410 168583

Part No.	Product No.	Description	Wt. (lbs.)	1	10	25
168410	TWZ236	SMD tweez iron	0.9	$59.95	$53.95	$48.95
168583	46-060102	Tip .078" for P/N 168410	.02	10.95	9.95	8.95
168591	46-060115	Tip .590" for P/N 168410	.02	11.95	10.95	9.95

We'll Send It Today! 99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Tips & Replacement Parts For XYtronic Soldering and Desoldering Products

Figure 1 Figure 2 Figure 3 Figure 4 Figure 5 Figure 6 Figure 7 Figure 8 Figure 9

Part Number	Product Number	Description	Fig.	For Model Numbers (*Previous Models) JSI258*	XY136	XY168*	XY1683C	XY960/AESD*/DESD	XY966D*	XY968D	XY999SDA*	XY2660*	XY200GX	Pricing 1	10	25
35078	XY1	Soldering tip - semi-chisel 1/32"	1	✓		✓	✓	✓			✓		✓	$3.95	$3.49	$2.95
35115	XY2	Soldering tip - conical chisel 1/16"	2	✓		✓	✓	✓			✓		✓	3.95	3.49	2.95
35238	XY3	Soldering tip - semi-chisel wide 1/8"	1	✓		✓	✓	✓			✓		✓	3.95	3.49	2.95
35326	XY5	Soldering tip - conical bevel 1/32"	3	✓		✓	✓	✓			✓		✓	3.95	3.49	2.95
35334	XY6	Soldering tip - conical sharp 1/64"	4	✓		✓	✓	✓			✓		✓	3.95	3.49	2.95
35191	XY25	Soldering tip - conical sharp 1/64"	5									✓		5.95	5.39	4.79
140231	XY461	Soldering tip - SMD flat pack 5.5mm	9				✓	✓			✓			7.95	6.95	5.95
181913	XYB01	Soldering tip - conical chisel 1/32"	5		✓									3.45	3.09	2.78
35297	XY37	Heating element- (nichrome)	6			✓	✓	✓			✓			19.95	17.95	15.95
35318	XY48	Assembly - 60W w/ nichrome heater	7			✓	✓	✓			✓			29.95	26.95	23.95
127634	XY50	Desoldering tip - 1.0mm (.0394")	8						✓	✓	✓			7.95	6.95	5.95
127642	XY51	Desoldering tip - 1.2mm (.0472")	8						✓	✓	✓			7.95	6.95	5.95
127651	XY52	Desoldering tip - 1.5mm (.0586")	8						✓	✓	✓			7.95	6.95	5.95

Economical 60-Watt High-Performance Soldering Iron

A high quality soldering iron that is suitable for both professional and do it yourself applications.

- 120VAC; 6' cord with 3-prong plug
- 60W power consumption • Length: 9"

Part No.	Product No.	1	10	25
195223	200PHG	$14.95	$13.45	$12.11

Temperature Controlled 60-Watt Soldering Station

ESD Safe Station

- High insulation/long life ceramic heating element
- Thermal control adjustable from 300˚F to 850˚F within ±6˚F
- Temperature lock to prevent unwanted adjustments
- External calibration port
- Size: 7.7"L x 5.3"W x 3.8"H • Weight: 4.7 lbs.

SALE

Part No.	Product No.	Description	1	10
168719	XY136ESD	Station	$99.95	$89.95

Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.

- 120VAC; 6' cord • 25 watt power consumption
- Interchangeable tips (pg 105)
- One-year warranty • UL listed • Length: 8.0"

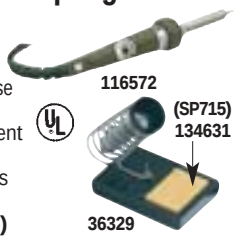
Includes: 1.6mm conical tip

Part No.	Description	1	10	25
129040	25W solder. iron	$12.95	$11.49	$10.49

16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572: (JS1258)
- Length: 7.5"

36329: (100S)
- Black anodized steel base – 5.3"L x 3.3"W
- See below for replacement sponge (P/N 134631)
- Fits most soldering irons .85" diameter



Includes: Sponge **(SP715)**

Part No.	Description	1	10	100
116572	Soldering iron	$19.95	$17.95	$15.95
36329	Soldering stand	3.49	2.95	2.49
134631	Sponge (for 100S)	2.79	2.49	2.25

Lead-Free Solder Tip Tinner

Use will prevent oxide buildups and tin depletion on the tip which will increase tip life, and heat transfer resulting in a better solder joint!

- 0.7 oz. tin with self adhesive pad

Safe and Effective!

Part No.	Description	1	10	50
132986	Lead-free tip tinner	$4.95	$4.59	$4.19

6' No-Clean Desolder Braids

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.
- Length: 6'

Part No.	Description	1	10	100
139951	.030"W desolder braid	$2.25	$1.95	$1.75
124126	.060"W desolder braid	2.25	1.95	1.75
124118	.085"W desolder braid	2.25	1.95	1.75

5' Desoldering Braids

- Easy to use handy dispenser
- Braided copper with flux

Part No.	Description	1	10	100
41081	.079"W braid (5')	$.99	$.79	$.65
41099	.098"W braid (5')	1.09	.89	.75
153461	.120"W braid (5')	1.25	1.09	.99

Desoldering Wick

No more burnt fingers

- Length: 5' • 0.067" wide
- Handy dispenser • No clean flux formula
- Pure copper braid

Part No.	Description	1	10	25
175986	0.067" braid	$2.49	$2.24	$2.02

Solder Bars

- Used for soldering pots
- Tin/lead
- Size: 13"L x 0.9"Dia.

Part No.	Description	Wt. (lbs.)	1	10
176057	Solder bar (60/40)	1.1	$6.95	$6.25
170464	Solder bar (63/37)	1.8	10.95	9.95

Soldering Tip Cleaner W/Stand & Rosin Paste Flux

156777:
- For cleaning soldering iron tips without the use of water and sponge
- Rubberized base for stability
- Metal wool for cleaning

73584: Highly active non-corrosive & non-conductive flux w/ excellent wetting action

Part No.	Description	1	10	50
156777	Tip cleaner & stand	$6.95	$6.25	$5.59
160004	Metal wool replacement	2.49	2.25	1.95
73584	Rosin paste flux (2 oz.)	1.59	1.45	1.29

2000-Watt Solder Pot

- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 170464 or 176057, left
- Input voltage: 110V @ 18A 60/50Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size (unit): 18.1"L X 11.5"W X 6.0"H
- Size (tub): 12.0"L X 8.0"W X 2.9"H
- Weight: 23.1 lbs. • One-year warranty

Part No.	Description	1	5
149876	2000 watt solder pot	$329.95	$299.95

600-Watt Solder Pot

Temperature Adjustable

- 2-prong power cord (5'5")
- Tin boiler temp.: 0˚C to 500˚C
- Self regulating temperature
- On-off power switch and LED indicator for heat
- Input voltage: 110VAC @ 5.5A
- Holds up to 3 bars of P/N 170464 or 176057, left
- Size (unit): 3.9"L x 1.6"D
- Size (tub): 6.8"L x 5.5"W x 2.8"H • Weight: 7.4 lbs.

Includes: Skimmer and removable dross tray

Part No.	Description	1	10
172275	600W solder pot	$189.95	$159.95

300-Watt Solder Pot

Temperature Regulated between 420 – 450˚C

- HI/LO switch selectable for temperature
- 2 conductor power cord; 5' 9" long
- Holds up to 1 bar of P/N 170464 or 176057, left below
- Input voltage: 110VAC @ 2.7A; 50/60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)
- Size: (tub) 2.4"Dia. x 1.6"D
- Weight: 5.9 lbs. • One-year warranty

Part No.	Description	1	10	25
160303	300W solder pot	$59.95	$53.95	$48.95

80-Watt Ultrasonic Steri-Cleaner

- Operating frequency: 46kHz
- Power supply: 110VAC @ 60Hz, standard 2-prong 6' cord
- Tank capacity: 0.5 gallons
- Size (unit): 6.8"W x 6.5"D x 8.0"H
- Size (tank): 6.0"W x 5.4"D x 4.0"H
- Weight: 4.3 lbs. • One-year warranty

Part No.	Description	1	10
149841	Ultrasonic steri-cleaner	$249.95	$224.95

Rosin Core Solder Rolls and Pocket Packs

- P/N 151474 is organic core

Part No.	Mfg.	% Composition Tin	Lead	Silver	Dia. (In.)	Wt. (lbs.)	Pricing 1	10	50	100
73576	Kester (pak)	60	40	0	.031	0.04	$2.59	$2.35	$1.99	$1.85
32117	Kester	60	40	0	.031	1.00	11.95	10.95	9.95	8.95
73605	Kester (pak)	62	36	2	.020	0.10	1.75	1.49	1.25	.99
112344	Kester	63	37	0	.020	1.10	15.95	14.49	13.95	12.95
151474	Kester	63	37	0	.031	1.00	11.95	10.95	9.95	8.95
170456	—	60	40	0	.031	0.06	.99	.85	.69	.55
141794	—	60	40	0	.031	0.55	4.95	4.49	3.95	3.49
141786	—	60	40	0	.031	1.10	7.95	6.95	6.25	5.59
141778	—	60	40	0	.031	2.20	13.95	12.95	11.95	10.95

CAIG Chemical Products

195071 195143 195151 195098 195119

195080

195101

195127 195135

* NOTE: Shipped via UPS ground only

CaiKleen™ TRP

- Citrus cleaner/defluxer • Excellent label remover
- Citrus based

Part No.	Description	Fl. (oz.)	1	12
195071*	CaiKleen aero. spray	7.0	$6.95	$6.25
195080	CaiKleen pen	0.4	12.95	11.65

CaiKleen™ RBR

- Rubber cleaner and rejuvenator • Concentrate

195143: Pump bottle
195151: Needle dispenser

Part No.	Description	Fl. (oz.)	1	12
195143*	CaiKleen RBR spray	5.0	$12.95	$11.65
195151	CaiKleen RBR liquid	0.8	8.95	8.05

CaiKleen™ A/V

- VTR/VCR precision cleaner • HCFC blend

Part No.	Description	Fl. (oz.)	1	12
195098	CaiKleen pump spray	5.0	$12.95	$11.65
195101	CaiKleen pen	0.4	12.95	11.65
195119	CaiKleen liquid	4.0	8.95	8.05

CaiKleen™ NF

- Contact cleaner/degreaser, nonflammable fast evaporating • Vertrel XMS

Part No.	Description	Fl. (oz.)	1	12
195127	CaiKleen pump spray	5.0	$21.95	$19.75
195135	CaiKleen liquid	4.0	17.95	16.15

CAIG CircuitWriter™

- Conductive ink
- Silver based

Part No.	Description	Fl. (oz.)	1	12
195160	CircuitWriter pen	0.2	$13.95	$12.55

CAIG CircuitSealer™

- Conformal coating
- Acrylic based

Part No.	Description	Fl. (oz.)	1	12
195178	CircuitSealer pen	0.2	$11.95	$10.75

CAIG CaiKote™ 44 Kit

- Conductive carbon coating for button contacts and membranes
- Carbon based

Part No.	Description	Wt. (oz.)	1	12
195186	CaiKote 44 kit	0.2	$24.95	$22.45

TECHSPRAY Workshop Chemical Products

- Safe on plastics • EPA SNAP approved, no CFCs or HCFCs • **NOTE: Shipped via UPS ground only**

139900 118050 118041 118033 195258 139934 195240 195266 195282 195291

Envi•Ro•Tech™ Duster

- Acc-u-sol trigger • 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
139900	Dusting gas w/ trigger	0.8	$6.95	$6.25

ECOLINE Cleaner Degreaser

- Rapid evaporation • 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
118050	Cleaner degreaser	0.8	$8.29	$7.46

ECOLINE Flux Remover

- Dissolves type R, RMA, RA, SA and most no-clean fluxes • 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
118041	Flux remover	0.8	$9.95	$8.95

ECOLINE Contact Cleaner

- Ideal for switches, relays, contact pads and other places of electrical connections • 10 oz. aerosol can
- Solvent will not damage switch housings

Part No.	Description	Wt. (lbs.)	1	12
118033	Contact cleaner	0.9	$8.95	$7.95

LICRON Permanent Dissipative Coating

- Excellent adhesion to metal, plastics, paints, and most other surfaces • Superior adhesion
- Translucent conductive coating • 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
195258	Static dissipative	1.0	$37.49	$33.95

Envi•Ro•Tech™ Freezer

Rapidly evaporating liquid that can chill to -62˚F.

- 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
139934	Envi•Ro•Tech freezer	0.8	$7.95	$6.95

VORTEX 360 Duster

- Vortex 360˚ invertible valve • 10 oz. aerosol

Part No.	Description	Wt. (lbs.)	1	12
195240	Dusting gas	0.8	$9.95	$8.95

ADVANEX 10 All Purpose Lubricant

- For all industrial application
- Penetrates leaving a thin, protective coating that cleans and lubricates • 15 oz. aerosol

Part No.	Description	Wt. (lbs.)	1	12
195266	All purpose lubricant	1.3	$3.45	$3.10

EQUINOX Gold Cleaner Degreaser

- Water based, safe on plastics and most metals
- For heavy industrial use • 1 quart trigger sprayer

Part No.	Description	Wt. (lbs.)	1	12
195282	Cleaner/degreaser	0.5	$6.25	$5.62

Fiber Optic Cleaning Kit

Includes: Enviro-Tech duster; Isopropyl alcohol; Narrow-tip foam swabs; TechClean absorb wipes

Part No.	Description	Wt. (lbs.)	1	6
195291	Fiber optic cleaner kit	1.0	$26.95	$24.25

CAIG Chemical Products

* NOTE: Shipped via UPS ground only

194968 194976 195004 195012 195021 195039 195063 194984 194992

ProGold™

- Conditioner, preservative and lubricant for plated electrical connections (-34˚C to 200˚C)

194950: 5% solution **194968:** 100% solution
194976: • 100% solution • Brush applicator

Part No.	Description	Fl. (oz.)	1	12
194950*	ProGold aero. spray	6.0	$17.95	$16.15
194968	ProGold pen	0.2	20.95	18.86
194976	ProGold liquid	0.25	19.95	17.95

DeoxIT™

- Deoxidizer, cleaner and preservative for metal electrical connections

195004: 5% solution aerosol spray
195012: 100% solution
195021: •100% solution • Brush applicator

Part No.	Description	Fl. (oz.)	1	12
195004	DeoxIT D5 spray	6.0	$10.95	$9.86
195012	DeoxIT pen	0.2	14.95	13.46
195021	DeoxIT liquid	0.25	10.95	9.86

OpticALL™ Spray

- Long lasting anti-static cleaner and preservative for glass, plastic and metal • Concentrate

Part No.	Description	Fl. (oz.)	1	12
195039*	OpticALL aerosol	6.0	$5.95	$5.35
195047*	OpticALL aerosol	13.5	8.95	8.05

StaticALL™ Spray

- Neutralizes static buildup • Concentrate

Part No.	Description	Fl. (oz.)	1	12
195055*	Aerosol spray	6.0	$6.95	$6.25
195063*	Aerosol spray	13.5	9.95	8.95

R5™

- Nonflammable and safe on plastics

194984: 5% solution **194992:** 100% solution

Part No.	Description	Fl. (oz.)	1	12
194984*	Power booster spray	7.0	$25.95	$23.36
194992	Liquid squeeze tube	0.06	4.95	4.45

Part Number Color Code
New Sale Refurbished Closeout

Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing and etching. No camera or darkroom is required.

- Weight: 4.6 lbs.

***Shipped via UPS ground to continental U.S. only.**

Part No.	Prod. No.	Description	1	10
16731	12-750*	Printed circuit kit	$39.95	$36.95

Direct Etch "Starter" Set

Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIPS, patterns lines and 1/32" & 1/16" etch resist tape.

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
70412	ER1	Starter kit	0.7	$11.95	$10.95

Electronic Design Templates

136637 136629

These design templates are used to create simple schematic diagrams. The templates consist of electronic/electrical symbols such as resistors, capacitors (axial, radial, disc types), diodes, semiconductors in different packaging types, & center spacings.

Includes: Symbols, components and center spacing layouts

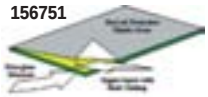
Part No.	Description	Scale	1	10	25
136637	Template "A"	1:1	$5.95	$5.35	$4.79
136629	Template "B"	2:1	6.95	6.25	5.59

Single-Sided Copper-Clad Circuit Boards

One 5" x 6" and one 3" x 4.5" (copper clad one sided) 1/16" phenolic circuit board.

Part No.	Prod. No.	Description	1	10	25
16707	ER11	Circ. boards	$4.95	$4.49	$3.95

Pre-Sensitized Circuit Boards & Developer



156751

- Pre-coated circuit board
- Size: 3.0"L x 4.0"W x 1/16"T

Includes: Instructions

Part No.	Description	1	10	25
156751	Single sided	$4.95	$4.49	$3.95
156742	Double sided	5.95	5.35	4.79
156734*	4 oz. Pos. developer	6.95	5.95	4.95

***Shipped via UPS ground to continental U.S. only**

Dry Concentrated Etchant

- Makes one pint of etch solution

Part No.	Prod. No.	Description	1	10	25
70201	ER3	Dry etchant	$3.95	$3.49	$2.95

Making Your Own Printed Circuit Board

JV Enterprises No darkroom or special equipment needed. Shows you steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages, 1999)

- Size: 8.5" x 11" • Weight: 0.5 lbs.

Part No.	Description	1	10
141524	Making PCBs Book	$19.95	$17.95

Accessories

16758 16723 70261

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
16758	ER8*	Negative-acting resist developer 16 oz.	1.2	$6.95	$5.95
16723	ER18	TINNIT™ 1 pint	0.2	6.95	5.95
70261	ER71*	Negative-acting photo resist liquid 4 oz.	0.5	8.95	7.95
70480	ER181	TINNIT™, 1/2 gallon size (bulk pack)	0.6	15.95	14.49

***Shipped via UPS ground to continental U.S. only**

Acid Brush

- Used for application of reactive solvents
- Metal handle • Length: 6"

Part No.	Description	1	10	100	1000
153322	Acid brush	$.45	$.39	$.29	$.15

Modern Electronics Soldering Techniques Book

Prompt Publishing Learn the art of electronics soldering. The author goes beyond the basic aspects of soldering and thoroughly discusses other key areas of electronics technology such as correct handling and identification of components. Also covered is the art of reading, converting schematics and improving your knowledge of test concepts. (293 pages, 2001)

- Size: 6.0" x 9.0" • Weight: 1.0 lb.

Part No.	Description	1	10
185498	Modern Electronics	$24.95	$22.49

Solar Panels

Photovoltaic Solar Panel

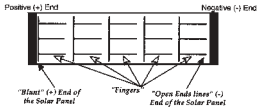
SALE

- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Rated 9.5VDC open circuit; 9VDC @ 0.06A in direct sunlight
- Size: 6"L x 6"W x 0.1"T

Part No.	Description	1	10	50
141751	0.5W solar panel	$6.95	$6.25	$5.59

Flexible Thin-Film Solar Panels

IOWA THIN FILM TECHNOLOGIES



- For recharging NiCad, Nickel Metal Hydride and Gel-cell batteries
- Size: 4.5"L x 1.46"W

Part No.	Output	1	10	100
172831	3VDC @ 10mA	$3.19	$2.87	$2.58
171061	3VDC @ 40-50mA	8.49	7.49	6.49

Miniature Glass Solar Panel

- Open circuit voltage: 16.5VDC in full sunlight
- Operating temperature range: -5° to +40°C
- Operating voltage: 12VDC @ 3mA
- Size: 3.6"L x 1.0"W

Part No.	Description	1	10	50
171985	Glass solar panel	$7.89	$7.19	$6.39

Deluxe Solar Power Car Kit

This deluxe aerodynamic solar powered car is loaded with fun and features.

- Multispeed transmission
- Dual power: powerful 1.4 volt/350mA solar cell or AA battery
- Body can be painted or left clear to view mechanics
- Components can be used to create other projects

Part No.	Description	Wt. (lbs.)	1	10
147774	Solar car kit	0.7	$39.95	$35.95

Check out our selection of kits on pages 173 - 180.

Serial Port 16kB-8MB Universal IC Programmer/Tester

Serial Port Interface

- 40-pin universal ZIF socket
- Programs PROMs, EPROMs, EEPROMs, flash memory, serial PROMs, BPROMs, DSP, microcontrollers, PLD/CPLD/FPGA, PALs, GALs, PEEL and EPLD
- Load file, read master, program, verify, auto, id check, checksum, blank check, erase, secure, protect/unprotect, edit, file transfer, function configuration, self-test functions
- IC tester function supports CMOS, SRAM and TTL
- Supports popular file formats including Intel HEX, Motorola S-records, binary, JEDEC fuse map, Altera POF and others • One-year warranty

Includes: Programmer, serial cable, software, manual, & table top power supply w/ 6' power cord

System requirements: 486, Pentium® and higher; 4MB of extended memory, serial port, 5MB of free disk space, Windows® 95/98/NT/2000 operating system and CD-ROM drive

Part No.	Description	1	10
168348	Serial univ. prog./tester	**$899.95**	**$799.95**

EPROM Eraser

- Erases all UV erasable EPROMs
- Holds a total of 16 EPROMs 32-pin
- Upper and lower erasing chambers
- Conductive foam liner eliminates static build-up • One-year warranty
- Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.

Includes: AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

Part No.	Description	1	10
121267	EPROM eraser	**$149.95**	**$134.95**

EPROM Erasers and Accessories

66042:

66042

- Erases all EPROMs
- Erases 1 chip in 7 minutes
- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm² • One-year warranty
- Size: 6.8"L x 1.5"W x 2.3"H • Weight: 0.8 lbs.

Requires: Four AA batteries (not included), recommend P/N 32627 (below)

15712:

15712

- Erases all EPROMs
- Erases 1 chip in 15 min.
- Erases 8 chips in 21 minutes
- Maintains constant exposure distance of 1"
- Conductive foam liner eliminates static build-up
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- UV intensity: 6.8mW/cm² • One-year warranty
- Size: 9.0"L x 3.7"W x 2.6"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
66042	Portable eraser	**$64.95**	**$58.95**	**$52.95**
15712	8-chip eraser	**129.95**	**117.95**	**106.95**

Part No.	Accessories	Price
34382	Replacement lamp for 15712	**$34.95**
13864	Conductive foam (12"x24"x0.25")	**7.95**
32627	'AA' Ni-Cad battery for 66042	**1.95**

One-Socket EPROM Programmers – 1MB and 8MB

RS232 Interface

82384

- ZIF socket
- Motorola s1f, s2f and s3f can convert to binary or ASCII prior to download
- Will work with any serial communication software
- Baud rate configurable per one digit commands
- Data bits: 8 • Start/Stop bits: 1
- Parity: none, even, odd, default none
- Flow control: none, RTS/CTS, XON/XOFF, Default RTS/CTS • One-year warranty

82384:

- Programs all current EPROMs up to 512kbits and the Intel 27CO11 (1Mbits); 2716-27512; 2804-8256; also 27CXXX and 28CXXX series
- Selectable VPP from 5V-25V
- Maximum pins: 28

81699:

- Command line interpreter enables the user to enter one or more single character commands at once
- Programs EPROMs up to 8Mbits: 2716-27080; 2804-28256; also 27CXXX and 28CXXX series
- Maximum pins: 32 • Weight: 3.0 lbs.

Part No.	Description	1	10
82384	1Mbits EPROM prog.	**$199.95**	**$179.95**
81699	8Mbits EPROM prog.	**209.95**	**188.95**

512k-Two Socket E(E)PROM Programmer

A compact unit that operates stand alone or interfaces with your computer via the printer port.

- Programs EPROMs up to 25V, Flash EPROMs (5V and 12V) EEPROMs, and SRAMs
- 2 sockets for master/slave operation
- Stand alone mode uses two optional 9V batteries (P/N 151095, pg 58) or included 12VDC @ 500mA adapter
- One-year warranty
- Size: 6.4"L x 4.3"W x 2.2"H

FUNCTIONS	
Stand alone mode	
- Functions Set	- Blank check
- IC Type select	- Program
- Verify and check sum	
Remote control mode	
- Type	- Read - Program
- Verify	- Disk - Help
- Process	- Parameter

Includes: Adapter, manual, cable and 3.5" disk

Part No.	Description	1	10
130155	EPROM writer	**$289.95**	**$259.95**

Linear IC Tester

Identify and test op amps, comparators, optocouplers, transistor arrays, analog switches and voltage regulators.

- Tests 8 to 24-pin devices
- Auto feature lists type and device number
- One-year warranty
- Display: 16 x 1 character LCD dot matrix
- Size: 6.4"L x 4.4"W x 1.8"H • Weight: 1.7 lbs.

Includes: 9VDC adapter

Part No.	Description	1	10
130147	Linear IC tester	**$649.95**	**$584.95**

Universal EPROM Programmer

Parallel Port Interface

- Programs 8 and 16 bit EPROM, paged EPROM, parallel and serial EEPROM, serial EPROM, NVRAM, BPROMS, PAL, GAL, PEEL, PALCE, EPLD, and over 400 microcontrollers
- Package supports up to 48-pin DIPS
- Full support for 1.8V, 2.7V, 3.3V, and 5V devices
- Supports Intel Hex, Motorola S-record, Hex auto recognition TekHex, Extended TekHex, ASCII, Raw Binary, Octal, MOSTech, Altera POF, Altera JAM and other file formats
- Device operations: file, load, edit, save, read device, device checksum, verify data, verify signature, blank check, bit test, device erase, over-program
- Built-in IC tester for 7400/4000 series, SRAM & DRAM

Includes: 6' parallel cable, 15VAC adapter, installation guide, programmer, CD-ROM software, and 3.5" drivers

System requirements: IBM compatible PC; 8MB RAM; 6MB hard disk space; DOS version 5.0 or higher; Windows® 9X/NT4; parallel port in SPP or ECP mode; 15VAC adapter (included) or 8 AA batteries, recommend P/N 151087, pg 58 (not included)

Part No.	Description	1	10
173294	EPROM Programmer	**$1295.95**	**$1195.95**

Parallel Port 16kB - 32MB Universal IC Programmer & Tester

- Programs serial (E)PROM, EPLD, GAL, PEEL, microcontrollers and Flash PROM
- Auto search device select functions supports E(E)PROM and Flash memory
- Auto configures for host parallel port
- Supports JDEC, Intel Hex, Motorola S Records, Binary Tektronix Protocol and ASCII file formats
- 1500 plus device library
- Device functions: blank check, read program, verify, checksum and encryption
- Buffer features: clear, edit, fill, file load, file and file save • 48-pin universal ZIF socket
- Programming algorithms: normal, intelligent, quick pulse and flash programming
- Size: 8.8"L x 5.8"W x 1.5"H • Weight: 4.6 lbs.

Includes: Power supply, manual, 3.5" disk, IC module and cable

System requirements: IBM PC/XT/AT/386/486/Pentium®, DOS or Windows® 95/98 and open parallel port

Part No.	Model/Product No.	1	10
163184	BK846 programmer	**$599.95**	**$549.95**

See page 10 & 11 for our selection of EPROM, PROM, GAL and PAL Integrated Circuits

Part Number Color Code
New Sale Refurbished Closeout

Protected Banana Style Multimeter Test Probes

- Threaded/pointed test tip
- 18 AWG wire • 42" long
- Black and red
- 2 per package

Part No.	Description	1	10	25
77737	Protected probes	$5.95	$5.35	$4.95

Standard Banana Style Multimeter Test Probes

- Black and red • 18 AWG wire
- 42" long • 2 per package

Part No.	Description	1	10	25
77745	Std. banana probes .	$5.95	$5.35	$4.95

Breadboard Pin to Breadboard Pin Test Leads

- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 per package • 20 AWG wire

Part No.	Description	1	10	25
77825	Breadboard pin leads	$11.95	$10.95	$9.95

Surface Mount Test Clips

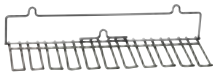
Color Coded

- Can access 0.3mm pitch IC leads
- Stackable side by side
- High reliability: gold- plated hook and contact
- High durability: barrel extension is fluorine-resin coated
- Wire length: 3" test clip wires
- Clip/wire color: 2 each black, red, green, yellow, blue and gray

Includes: 3" ground wire with #8 spade terminal

Part No.	Description	1	10
170528	SMD nano clips (12)	$119.95	$109.95

10-Slot Rack for Test Leads



- Useful for organizing test leads and small tools
- 10 slots
- Color: black
- Size: 11" long

Part No.	Description	1	10	25
185316	Test lead rack	$4.95	$4.45	$3.95

Double Banana Plugs

SALE

- Dual gold-plated female banana plugs
- Stackable

125217

Part No.	Description	1	10	100
125209	Blk banana connector	$1.95	$1.75	$1.49
125217	Red banana connector	1.95	1.75	1.59

Banana to Banana Test Leads

- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire

Part No.	Description	1	10	25
77841	Test leads	$20.95	$18.95	$16.95

BNC to Clip Test Cables

11421

11463

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video and test equipment.

- Micro-clip or mini-clip • Length: 39"

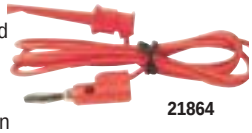
Part No.	Description	1	10	50	100
11421	Micro-clip RG174	$3.69	$3.29	$2.85	$2.49
11463	Mini-clip RG174	3.95	3.49	2.95	2.65

Double-Banana Plug to Alligator Clips Test Cable

- Red & black rubber boot
- 4" lead wire • Length: 3'

Part No.	Description	1	10	50	100
107422	Test cable	$3.95	$3.49	$2.95	$2.49

Mini-Clip to Banana Test Cables



21864

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire

Part No.	Description	1	10	100
21856	Black test cable	$3.49	$2.95	$2.49
21864	Red test cable	3.49	2.95	2.49

BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.

- Upper connection: two alligator clips – red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector

Part No.	Description	1	10	100	1000
11383	BNC cable	$3.29	$2.89	$2.49	$2.29

BNC to Standard Double Banana Plugs

11439

125225

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10	100
11439	BNC banana plug (F)	$3.49	$3.19	$2.69
125225	BNC banana plug (M)	3.95	3.49	2.95

Micro Test Clip

- One piece per package

Part No.	Description	1	10	100	1000
153162	1.6" micro test clip	$.75	$.59	$.39	$.29

Alligator Clip Leads

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors

Part No.	Description	1	10	100	1000
10444	Alligator leads	$2.95	$2.75	$2.49	$2.29

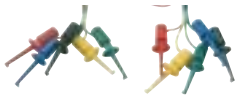
Insulated Alligator Clips

- Color-coded
- Insulated barrel
- Jaw opening .375"-0.5"
- Accepts standard banana connector
- Solder strap and pre-drilled hole for 6-32 self threading screw • Size: 2.3"L x 0.5"W

Includes: One red and one black clip

Part No.	Description	1	10	100	1000
70990	Alligator clips	$.44	$.39	$.35	$.32

Mini-Clip Test Leads



These spring loaded mini-clips hook easily to IC pins for testing.

- Set of five: red, blue, green, black and yellow • 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10	100	1000
135298	Mini test leads	$10.49	$9.49	$8.49	$7.49

Mini Test Clips

114817

- Two lengths

Includes: One black and one red hooked probe clip

Part No.	Description	1	10	100
114809	1.75" mini test clips	$1.49	$1.19	$1.09
114817	3.5" mini test clips	1.75	1.39	1.25

1 9/16" Banana Plugs

- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- Insulating sleeve is threaded to banana plug body
- .1875" lead opening • Size: 1.6"L x 0.4"Dia.

Includes: One red and one black plug

Part No.	Description	1	10	100	1000
72194	Banana plugs	$1.39	$1.25	$1.05	$.89

2 1/4" Banana Plugs

SALE

- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Set-screw connection
- Each plug equipped with hole for interconnection
- Size: 2.3"L x 0.3"W
- Insulating sleeve fits snugly over copper post

Includes: One red and one black connector

Part No.	Description	1	10	100
137525	Banana plugs	$2.95	$2.12	$1.84

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Pomona® Stackable Banana Test Lead Cables

159898 159901 159919

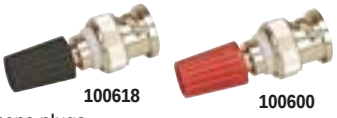
- 5000V @ 15A • 55˚C max.

159898: 36" leads, 2 mini w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation

159901: Two 24" leads **159919**: Two 36" leads

Part No.	Prod. No.	Description	1	10	25
159898	3782-36	Mini w/ banana	$7.95	$6.95	$6.25
159901	B-24-02	Patch cord	8.95	7.95	6.95
159919	B-36-02	Patch cord	9.95	8.95	7.95

Single Binding Posts to BNC Male



100618 100600

- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated

See page 151 for BNC Connectors

SALE

Part No.	Description	1	10	100
100618	Black binding post	$.95	$.86	$.78
100600	Red binding post	1.95	1.27	.79

BNC to Double Binding Posts – Dual Banana

125233

- Red/Black design

Part No.	Description	1	10	100
125233	BNC-female	$3.25	$2.75	$2.49
99354	BNC-male	3.25	2.75	2.49

Double Binding Posts – Dual Banana

- Red/Black design
- Screw-mount
- 0.72" between posts
- Size: 1.6"L x 1.4"W

Part No.	Description	1	10	100
125196	Screw mount bind post	$2.49	$1.95	$1.75

1" Screw-Type Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06" diameter
- Size: 1.0"L x 0.5"Dia.

Requires: 0.32" mounting hole

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
71239	Binding posts (2)	$.99	$.85	$.69	$.59

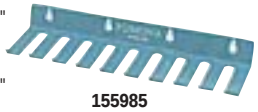
1.75" Screw Solder Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Solder post: 0.0625" diameter • Chassis mounting
- Size: 1.8"L x 0.5"Dia.

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
77690	Binding posts (2)	$1.09	$.95	$.79	$.69

Pomona® Test Lead Holders



155985

155985:
- Max cable dia.: 0.450"
- 11"L • Color: blue

155977:
- Max cable dia.: 0.320"
- 11"L • Color: black

155969:
- Max cable dia.: 0.210" • 11"L • Color: orange

Part No.	Product No.	No. of Slots	1	10	25
155985	2708B	9	$6.95	$6.25	$5.59
155977	4408	10	6.95	6.25	5.59
155969	1508	14	6.95	6.25	4.95

Pomona® Minigrabber® Test Clip Patch Cord Kits

156494 156507

- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads

Part No.	Prod.No.	Description	1	10
156494	5523	Patch cord (hook)	$34.95	$31.49
156507	5521	SMD cord (jaws)	56.95	51.25

Pomona® BNC Male w/ Molded Strain Relief to Minigrabber® TestClips

- RG 174/U, .100" O.D.
- Rating: 300 VRMS max., +50˚C (+122˚F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"

Part No.	Prod.No.	Description	1	10
176954	5187-K-36	Minigrabber®	$21.95	$19.95

Pomona® BNC Male w/ Molded Strain Relief to Minigator® Test Clips

- RG 58C/U, .195" O.D.
- Rating: 45 VRMS max., +50˚C (+122˚F) max.
- Jaws open to .187" max.
- Length: 36"

Part No.	Prod.No.	Description	1	10
176971	4532-C-36	BNC/Minigator®	$17.95	$15.95

Pomona® Solderless Banana Plugs

159863 159855 159927

- Nickel-plated • Set screws secure leads
- ABS insulation • 5000VDC @ 15A • 50˚C max.
- Color: 1 red and 1 black per pack

159863: Solderless with safety collar & set screw
159855: Solderless with set screw
159927: Solderless double banana plug w/ wire guide

Part No.	Product No.	1	10	25
159863	1825-02	$2.45	$2.19	$1.95
159855	1325-02	2.45	2.19	1.95
159927	MDP-02	3.95	3.55	3.19

PROBE MASTER Micro-tip Probe Test Leads

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"
- Spring loaded micro tip
- Weight: 0.2 lbs.

Includes: 8 plunger type tips

Part No.	Description	1	10	25
174625	Micro tip test leads	$34.95	$31.49	$28.95

Pomona® BNC Cables

159871

- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length:
  P/N 159871: 36"
  P/N 159880: 60"

Part No.	Product No.	1	10	25
159871	2249-C-36	$13.95	$12.49	$10.95
159880	2249-C-60	16.95	14.95	10.95

Pomona® Replacement Probe Test Lead Set

- Set of two PVC 48" long insulated leads (black/red), probe to banana plug
- Fits Fluke, HP, Tektronix, Wavetek DMMs
- Right-angle multimeter connectors

Part No.	Product No.	1	10	25
155951	5519A	$12.95	$11.49	$10.49

Pomona® Basic Electronic DMM Test Lead Kit

Kit Contains 2 Each (Black/Red):

- Test probes with silicone insulated lead
- Slide-on extended tips & alligator clips
- Supplied in a reusable plastic case • 48" leads
- Fits most equipment with banana jacks

Part No.	Product No.	1	10	25
155942	5672A	$19.95	$17.95	$16.39

Universal Test Lead Kit

Includes: 3 ft. black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug

SALE

Part No.	Description	1	10	100
168516	Universal kit	$8.95	$7.95	$6.95

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

EZ DIGITAL

100MHz Dual Trace Oscilloscope

- DC to 100MHz, 2-channel dual trace
- Signal delay with delay line
- Auto focusing according to the change of intensity
- Weight: 22.8 lbs.
- Size: 16.9"L x 12.6"W x 5.5"H
- Two-year manufacturer's warranty

Part No.	Product No.	Description	1	5
121179	OS5100	Oscilloscope ...	**$999.95**	**$899.95**

EZ DIGITAL

20MHz Dual Trace Oscilloscope with 1MHz Function Generator

- Basic specs same as OS5020 (below)
- **Function generator**
- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveform: sine, triangle, square, TTL pulse
- Output impedance: 50Ω • Output voltage: 14Vp-p
- Two-year manufacturer's warranty
- Size: 12.6"L x 12.6"W x 6.8"H • Weight: 23.8 lbs.

Requirements: AC100/120/220/240V 50/60Hz-45W

Part No.	Product No.	Description	1	5
94650	OS5020G	Func. gen.	**$499.95**	**$469.95**

EZ DIGITAL

20MHz Dual Trace Oscilloscope

- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2µs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50/60Hz, 45W
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.
- Two-year manufacturer's warranty

Includes: Two 40MHz probes (X1 & X10), power cord, manual, and block diagram

Part No.	Product No.	Description	1	5
136098	OS5020	20MHz scope	**$399.95**	**$379.95**

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 185

Dual Channel 100MHz Digital Oscilloscope with 3¾-Digit Multimeter

EZ DIGITAL

Oscilloscope:

- 250MS/s
- 5" STN LCD backlight display
- 100MHz bandwidth, dual channel, dual digitizers
- Fast rise time and low overshoot
- Low drift low noise reduction
- RS232C programmability and communication
- Vertical axis: 8-bits; 1mV/div to 5V/div in 12 steps; 10Hz low frequency limit in AC couple; input impedance @ approximately 1MΩ in parallel with 25pF; 42Vpeak (DC + peak AC) max. safe input voltage
- Horizontal axis: 2k words/CH acquisition memory; 5ns/div to 5sec/div sweep time on equivalent sampling; 5ns/div to 0.5us/div sweep time on real sampling

4000 Count 3¾-Digit Digital Multimeter

- AC/DC voltage: 400mV to 400V in 4 ranges with resolution of 0.1mV to 100mV
- Resistance: 400Ω to 4MΩ in 5 ranges with resolution of 0.1Ω to 1kΩ
- Diode and continuity testing
- Min./Max./Relative/Hold functions

Includes: Serial cable, software, oscilloscope probes, multimeter probes with detachable alligator clips and desktop power supply

Part No.	Product No.	Wt. (lbs.)	1	5
190924	OS310M	8.6	**$1499.95**	**$1375.95**

EZ DIGITAL

100MHz Delayed Sweep Oscilloscope w/ Frequency Counter

2 Channel, 4 Trace

- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz bandwidth; 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC • Rise time: 3.5ns or less

Part No.	Product No.	Wt. (lbs.)	1	5
190932	OS5100RB	17.6 ...	**$1199.95**	**$1075.95**

Oscilloscope Guide Book

Prompt Publishing

This book's full illustrations and diagrams bring oscilloscopes to life. Learn how to use them to conduct many tests and measurement techniques. This book answers questions about various types of oscilloscopes and how to obtain useful test results. (214 pages, 2001)

- Sizez:7.5" x 9.2" • Weight: 0.9 lbs.

Part No.	Description	1	5
185404	Oscilloscope Guide Book ..	**$39.95**	**$35.95**

Handheld 20MHz 2-Channel Digital Oscilloscope

Model 460

- Bandwidth: 20 MHz • 2 channels
- RS-232: optically isolated output
- Sampling rate: 25 MS/s
- DC/AC voltage ranges (CH1/CH2): 400mV to 600V
- DC/AC voltage resolution ranges: 0.1mV to 1V
- Frequency ranges (CH1/CH2): 1Hz to 20MHz
- Resistance ranges (CH1 only): 400Ω to 20MΩ
- 4,000 count autoranging DMM
- Continuity and diode test
- Waveform: vertical 8 divisions of 20 pixels
- Backlight • Handheld
- 3" x 3" LCD screen • Adjustable contrast
- Meets Cat III 600V • Three year warranty

Includes: AC charger, 2 banana to BNC adapters, 0-60 MHz oscilloscope probe, high performance test leads and manual

Part No.	Description	1	10
195231	460 Oscilloscope	**$895.95**	**$799.95**

Handheld 20MHz Digital Oscilloscope & Multimeter

METEX

(Shown w/ logic probe P/N 162974 – not included)

- 4-in-1 test equipment: digital oscilloscope, DMM, frequency counter and logic analyzer
- Easy-to-read LCD display
- **Oscilloscope**: 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3¾ digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage from 400mV-600V; AC current from 40µA-400mA; DC current from 400µA-400mA; resistance from 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- Oscilloscope probes use P/N 22891/66149/140687, pg 113 • One-year warranty
- Size: (unit) 10.0"L x 5.0"W x 2.0"H • Wt.: 9.2 lbs.

Includes: Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

Part No.	Description	1	5
162430	20MHz digital scope	**$799.95**	**$749.95**
162974	Logic probe	**59.95**	**53.95**
163141	Rechargeable battery (spare)	**59.95**	**53.95**
162966	RS232 cable and software ..	**24.95**	**22.49**

PROBE MASTER

Micro-tip Probe Test Leads

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"
- Spring loaded micro tip
- Weight: 0.2 lbs.

Includes: 8 plunger type tips

Part No.	Description	1	10	25
174625	Micro tip test leads..	**$34.95**	**$31.49**	**$28.95**

Handheld Oscilloscope and Multimeter

Six Units in One!

- 4,000 count True RMS DMM
- 1MHz bandwidth oscilloscope
- 20MHz sampling rate
- Logic test
- Frequency counter
- Trend mode allows recording of sine waves for a period of time
- Component test
- Three-year warranty

Includes: AC charger, test leads and manual

Part No.	Description	1	5
160805	440 digital oscilloscope ..	**$349.95**	**$339.95**
168330	RS232 software and cable..	**69.95**	**62.95**
170499	Rubber boot	**19.95**	**17.95**

Digital Handheld Oscilloscope

- 5MHz for repetitive signals; 0.5MHz for single shot events
- Input impedance: 1MΩ/20pF
- Maximum input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 64 x 128 pixels (64 x 96 pixels for signal)
- High contrast LCD display w/ 3.3" viewing angle
- Vertical resolution: 8-bit (6-bit for LCD)
- Timebase range: 2µs to 20s/div
- Input sensitivity: 5mV to 20V/div
- Trigger mode: run; normal; once, and ± slope
- True RMS and dB measurements • Screen hold
- Recommend 9VDC @ 300mA power supply (P/N 133891, pg 72) • Linearity: ±1 bit
- Batteries not included, recommend P/N 32627 or P/N 151087, pg 58
- Size: 8.7"L x 4.2"W x 1.5"H • Weight: 1.6 lbs.

velleman

Includes: Insulated BNC to alligator clip measurement probes and case

Part No.	Description	1	5
168823	5MHz scope (Model HPS5)	**$199.95**	**$179.95**

Complete Book of Oscilloscopes

TAB Publishing Provides an in-depth reference source and practical applications guide. Learn how to read signals using different types of oscilloscopes. Also get detailed schematic diagrams of many types of oscilloscopes. 2nd edition. (305 pages, 1992)

- Size: 7.5" x 9.1" • Weight: 1.2 lbs.

Part No.	Description	1	10
147192	Complete Book of Oscillo.	**$19.95**	**$17.95**

We'll Send It Today
99.7% Products
Are In Stock!

Just place your order by 6PM EST for same business day shipment.

PC-MultiScopes 20MHz and 100MHz Dual-Channel

Turn your PC into a digital storage oscilloscope for 1/2 the cost of a DSO!

163230

mission technology

- Chart recorder and FFT mode
- One-year warranty

Includes: Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

142834: PC-MultiScope 2
- 20MHz sampling; dual channel
- 1mV to 10V per div.; 10MHz bandwidth; ext. trigger
- Triple power supply; 5VDC @ 500mA and ±0-7VDC @ 150mA
- Size: 5.7"L x 6.7"W x 1.8"H • Weight: 3.8 lbs.

163230: PC-MultiScope 3, "e-LAB"
- 100MHz sampling; dual channel
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply; 5VDC @ 500mA and ±0-8VDC @ 250mA
- Size: 4.3"L x 5.0"W x 1.5"H • Weight: 3.8 lbs.

Part No.	Description	1	10
142834	PC-MultiScope 2 (20MHz)	**$349.95**	**$319.95**
163230	PC-MultiScope 3 (100MHz)	**549.95**	**499.95**

Protek ISA Digital Oscilloscope Card for Windows® 95

Dual Channel PC-Based DSO

- 20MS/s sample rate per channel
- 8-bit resolution
- Amplitude: max. 300V + pk
- Auto setup: 30Hz to 2MHz, 35V p-p max.
- Impedance: 1MΩ 25pF
- External trigger coupling: AC
- Trigger levels: ±3 div • Trigger type: analog
- Time range: 50ns/div to 0.5s/div 1-2-5 22 step
- Input range: 50mV/div to 5V/div 1-2-5 7 step
- One-year warranty

System requirements: IBM PC 486, Pentium® or compatible; 8MB of RAM; VGA graphics card and monitor and 8-bit ISA slot

Includes: CD-ROM software, driver, manual & probes

Part No.	Description	1	5
153568	Oscilloscope card	**$229.95**	**$209.95**

Pomona® 100MHz Probe Set

- Complete accessory kit included
- 48" cable
- Attenuation: X1/X10
- Bandwidth: 15/100MHz (-3dB)
- Risetime: 23.33/3.5ns
- Input resistance: 1/10MΩ
- Capacitance: 64/10.5pF
- Compensation range: NA/10~60pF

Part No.	Product No.	Description	1	10
156451	4550B	Probe kit	**$51.95**	**$46.95**

60MHz Modular Oscilloscope Probe

- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- BNC male connector
- 5' cable

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	40MHz
Bandwidth (3dB)	6MHz	60MHz
Impedance (R/C)*	1MΩ /180pF	10MΩ /22pF

** with oscilloscope input 30pF*

Part No.	Product No.	1	10	50
22891	LF101E	**$20.95**	**$18.95**	**$16.95**

100MHz Modular Oscilloscope Probe

- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- BNC male connector
- 5' cable

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	60MHz
Bandwidth (3dB)	6MHz	100MHz
Impedance (R/C)**	1MΩ /150pF	10MΩ /14pF

*** with oscilloscope input 20pF*

Part No.	Product No.	1	10	50
66149	LF210A	**$31.95**	**$27.95**	**$24.95**

150MHz Oscilloscope Probe

Designed for use with Tektronix and Hewlett Packard oscilloscopes.

- 3 position switch: 1X, ref, 10X
- Bandwidth @ 3dB: 10MHz (X1); 150MHz (X10)
- Loading: 57pF, 1MegΩ (X1); 15pF, 10MegΩ (X10)
- Low-resistance gold contacts • 7-piece kit
- Cord length: 5'

PROBE MASTER

Part No.	Product No.	1	10	50
174473	4901-02	**$44.95**	**$39.95**	**$36.95**

250MHz Oscilloscope Probe

- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- BNC male connector
- 5' cable

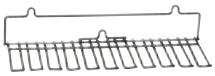
Includes: Extra probes

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	150MHz
Bandwidth (3dB)	6MHz	250MHz
Impedance (R/C)***	1MΩ /150pF	10MΩ /14pF

**** with oscilloscope input 20pF*

Part No.	Product No.	1	10	25
140687	LF290	**$41.95**	**$37.95**	**$33.95**

10-Slot Rack for Test Leads



- Useful for organizing test leads and small tools
- 10 slots
- Color: black
- Size: 11" long

Part No.	Description	1	10	25
185316	Test lead rack	**$4.95**	**$4.45**	**$3.95**

Part Number Color Code
New Sale Refurbished Closeout

150kHz Sine/Square Wave Audio Generator

BK PRECISION

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Size: 5.9"L x 3.2"W x 0.8"H
- Z out = 600Ω • Weight: 0.7 lbs.
- One-year manufacturer's warranty

Includes: 9VDC battery

Part No.	Product No.	Description	1	10
166334	BK3001	Audio generator..	$78.95	$71.95

5MHz Function Generator

BK PRECISION

Engineered for high reliability and user convenience.

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Z out = 50Ω
- Coarse and fine tuning • Two-year warranty
- Size: 10.4"W x 11.7"D x 3.4"H • Weight: 6.2 lbs.

Part No.	Product No.	Description	1	5
160469	BK4011A	0.5 to 5MHz ..	$314.95	$299.95

2MHz Function Generator

- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to ±10V; can be superimposed to output waveform
- Output voltage: 20Vp-p (open circuit), 10Vp-p (into 50Ω)
- One-year manufacturer's warranty
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.

Requires: 110V/220V 50/60Hz, 20W

Includes: Power cord, BNC to clip cable, fuse and manual

Part No.	Product No.	1	5	10
66069	FG8002	$189.95	$179.95	$169.95

2MHz Sweep Function Generator with 6-Digit Frequency Counter

- Frequency range: 0.02Hz to 2MHz in 7 ranges
- Sweep width: 1:1 to 100:1; ratio: 20ns to 25 (.5Hz - 50Hz)
- Output impedance: 50Ω ±5%
- Frequency counter range: 2Hz to 50MHz
- Maximum input voltage: 250Vp-p
- One-year warranty
- Input voltage: 115/230VAC @ 50/60Hz (switchable)
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.8 lbs.

Includes: Probe and detachable power cord

Part No.	Product No.	Description	1	5
94676	FG7002C	Function gen. ..	$329.95	$296.95

METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

Save Bench Space and $800

- **Function generator** capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- **Universal counter** capable of measuring frequency ranges from 5Hz to 1.3GHz
- **DC power supply** capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- **Digital multimeter** capable of measuring DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400µF) and forward resistance of a semiconductor junction in kΩ
- One-year warranty
- Size: 14.5"W x 14.0"D x 7.0"H • Weight: 37 lbs.

Includes: Manual, cables and software

Part No.	Prod. No.	1	5
160864	MS9150	$549.95	$499.95

METEX® 2MHz Function Generator & 2.7GHz Frequency Counter

Function Generator: (2Hz - 2MHz)

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges
- Output impedance: 50Ω ±10%
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s

Frequency Counter: (5Hz - 2.7GHz)

- Measuring range: channel A – 1Hz to 20MHz; channel B – 20MHz to 2.7GHz
- Input sensitivity: channel A – 20mVRMS sinewave or 100mVp-p; channel B – 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Max. input voltage: channel A – 35Vp-p; channel B – 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Size: 11.0"L x 8.2"W x 3.7"H • Weight: 13.4 lbs.

Includes: Coax & power cable, manual and software

Part No.	Description	1	5
192671	Function generator/counter	$299.95	$269.95

Frequency Counter Module With 5-Digit LED Display

NEW

- 2-independent 32-bit counters
- Input frequency: 100kHz max.
- Input mode: isolated or non-isolated
- Isolation voltage: 3750Vrms
- Frequency measurement range: 1Hz to 100Hz
- Programmable built-in gate time: 1.0/0.1sec

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198141	Frequency counter module	$184.95	$166.49

2-Channel 1.5GHz Frequency Counter

- Totalize, RPM, period
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Input power: AC 110V/220V ±10%, 50/60Hz
- One-year warranty
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.3 lbs.

Includes: Fuse, manual and BNC cable

Channel	Frequency Range	Resolution
A	0.1Hz-150MHz	0.1nHz-10kHz
B	50MHz-1.5GHz	0.1Hz-100kHz

Part No.	Product No.	1	5
55790	FC7150	$299.95	$259.95

Logic Pulser

- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10µs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
24601	Logic pulser	$19.95	$17.95	$15.95

17MHz Logic Probe

- Max input frequency: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high and low
- Power supply protection: ±20V
- TTL threshold: (Lo) 0.8V ±0.2V, (Hi) 2.3V ±0.2V
- CMOS threshold: (Lo) 30% VCC, (Hi) 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
149930	Logic probe	$32.95	$29.95	$26.95

How to Test Almost Everything Electronic

TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

- Size: 7.4" x 9.3" • Weight: 1.3 lbs.

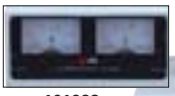
Part No.	Description	1	10
126199	How to Test Everything	$17.95	$16.15

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

90-Watt Digital and Analog DC Power Supplies

30VDC @ 3 A



101928
Meter Face

121152

- Constant current and constant voltage operation
- Can be used for positive or negative source
- Overload protection circuit
- Input voltage: 100-240VAC @ 50/60Hz
- Size: 5.2"W x 5.6"H x 10.0"D
- One-year warranty

Part Number	Product Number	Desc.	Weight (lbs.)	1	10
101928	GP4303A	Analog DC	10.9	**$199.95**	**$179.95**
121152	GP4303D	Digital DC	10.7	**199.95**	**179.95**

90-Watt Digital and Analog DC Power Supplies

30VDC @ 3A

197991

197982

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50/60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H
- Weight: 10 lbs.

NEW EXTECH INSTRUMENTS

Part No.	Description	1	10
197991	Digital DC	**$198.95**	**$178.95**
197982	Analog DC	**168.95**	**151.95**

Order 24/7/365 Days a Year

Same business day shipping until 6:00 p.m. EST

150-Watt Digital Power Supply

30VDC @ 5A

- Adjustable voltage/ current outputs
- Constant voltage and current operation
- LED displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- Color-coded terminals for positive, negative and ground connections
- 2A @ 250V fuse
- Dual digital display • One-year warranty
- Input voltage: 110/220VAC @ 50/60Hz (switchable)
- Size: 5.4"W x 10.7"D x 6.0"H • Weight: 13.8 lbs.

Part No.	Description	1	10	25
153242	30VDC @ 5A ..	**$219.95**	**$197.95**	**$179.95**

150-Watt Linear Power Supply

15VDC @ 10A

- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage and current operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Over-voltage, over-current, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter • Built-in fan
- Input voltage: 110VAC @ 50Hz
- Size: 5.7"L x 6.2"W x 4.0"H • Weight: 12.0 lbs.

Part No.	Product No.	1	10	25
175265	DPS150A	**$129.95**	**$116.95**	**$104.95**

150-Watt Power Supply

50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Color: dark gray
- One-year warranty
- Size: 9.0"L x 4.75"W x 7.5"H • Weight: 12.3 lbs.

Part No.	Description	1	10	25
163723	50VDC @ 3A	**$134.95**	**$119.95**	**$110.95**

190-Watt Triple Output Power Supply

Digital Display

- **Output voltage:**
  0 to +30VDC @ 3A
  0 to -30VDC @ 3A
  +5VDC @ 2A
- Ripple voltage: less than 3mVp-p
- Volt and current meter: LED display (±1% + 1 digit)
- Overload protection circuit
- Input voltage: 100VAC-230VAC @ 50/60Hz (switchable)
- Weight: 23 lbs. • One-year warranty

Includes: Manual and spare fuse

Part No.	Product No.	Description	1	5
157518	GP4303TP	Power supply	**$569.95**	**$519.95**

225-Watt Analog Power Supply

15VDC @ 15A

- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage and current operation
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage
- Cigarette lighter plug for current output
- Power and fan LED indicator • Built-in fan
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Size: 5.6"L x 6.2"W x 4.0"H • Weight: 3.8 lbs.

Part No.	Product No.	1	10	25
175257	SPS250A	**$139.95**	**$124.95**	**$109.95**

250-Watt Analog Power Supply

50VDC @ 5A

- Adjustable voltage/current outputs
- Constant voltage and current operation
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse • Isolated ground
- Input voltage: 220VAC @ 50-60Hz • Color: dark gray
- Size: 4.9"L x 7.7"W x 6.7"H • Weight: 13.8 lbs.

Part No.	Product No.	1	10	25
175249	DPS5050	**$159.95**	**$143.95**	**$130.95**

Network and Cable Testers

UTP Ethernet Cable Tester

- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests
- Size 4.5"L x 2.5"W x 1.3"H

Requires: 9V battery (recommend P/N 151095, pg 58)

Includes: Zipper case

Part No.	Description	1	10
115895	Network Cat. 5 tester	**$29.95**	**$26.95**

Telephone Line Analyzer Tester

- Connects between telephone and wall jack
- Line test: verifies DC voltage to phone
- Loop test: verifies line condition from central office to jack
- Ring and cord tests • Weight: 0.8 lbs.
- Size: 4.4"L x 2.5"W x 1.8"H • One-year warranty

Part No.	Description	1	10
119378	Line analyzer kit	**$27.95**	**$24.95**

PC Cable-Check™ Tester

Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11 and RJ45 telephone plugs.

Includes: Battery and manual

Part No.	Description	1	10
123916	PC cable-check™	**$149.95**	**$134.95**

Part Number Color Code
New Sale Refurbished Closeout

LAN Tester with Remote

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc. Test cables installed from a distance either on wall plate or patch panel.

- Check for cable continuity, miswiring, open, short, grounding and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM and BNC F-F
- On-board connectors: 2 RJ45F (tester) and 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)
- Weight: 0.7 lbs. • One-year warranty

Includes: Manual and test cables

Part No.	Description	1	5
145710	LanTest cable tester	$79.95	$71.95

TRIPLETT Wire Tracing Test Set

LAN "Fox" Generator and "Hound 2" Probe

Fox features:
- Generates 3 distinct tones usable for wire tracing
- LED indicator for continuity
- Line powered in tone mode
- Supplies talk power to a handset or telephone
- Size: 3.6"L x 2.4"W x 1.0"H
- Tone output level: +3dBm, 600Ω
- Max. continuity/talk current: 35mA (shorted leads)

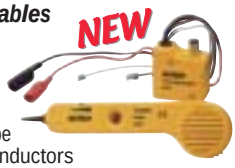
Hound 2 Probe features:
- Streamlined case design • Adjustable volume control
- LED indicator intensifies as signal gets stronger
- Hi-gain & hi-impedance amp • Mylar cone speaker
- Size: 7.2"L x 1.4"W (barrel) x 1.9"Dia. (speaker)

Requires: 9V battery (recommend P/N 151095, pg 58)

Part No.	Description	1	10
155133	Wire tracing set	$79.95	$71.95

EXTECH INSTRUMENTS Tone Generator and Amplifier Probe

For Tracing Wires & Cables



- Tests wire trace, continuity,clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Built-in speaker on probe with sensitivity control
- Output jacks for both headphones and handsets

Includes: Alligator test leads, modular phone connector cables, 9V battery and carrying pouch

Part No.	Description	1	10
198002	Tone generator/amplifier	$78.95	$70.95

RS232 Line Status Tester

Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19 and 20. Connectors: male to female DB25.

Part No.	Description	1	10	100
14285	Check line tester	$7.95	$6.95	$6.25

Universal PC Cable Tester

Multimedia, USB, SCSI

Control Panel & SCSI Tester

Interface Unit

- Complete testing interface for PC, multimedia, and USB cables
- Tested ports: 2 DB9 M-F; 2 HDDB15 M-F; 2 DB25 M-F; 2 Centronics 36-pin M-F; two 4-pin mini DIN F; two 5-pin DIN M-F; two 6-pin mini DIN M-F; 2 RCA F jacks; 2 RJ45 8P8C modular jacks; 2 audio jacks; 2 USB-A F; two 50-pin half pitch F; and two 68-pin half pitch F connectors

Requires: 9V battery (recommend P/N 151095, pg 58) or 9VDC adapter (recommend P/N 100845, pg 72)

Includes: Manual, 5-pin DIN M-M adapter cable, 6-pin mini DIN M-M adapter cable and two 40-pin IDC cables

Part No.	Description	Wt. (lbs.)	1	10
175513	Cable tester	5.1	$449.95	$399.95

Network Cable Tester/Locator

	Range:
50Ω/75Ω Coax	4' to 984'
100Ω twisted pair:	
with RJ45	4' to 328'
with alligator clips	4' to 984'

BelMERIT

- Detects opens, shorts, & cable distance
- Measures distance to the open or short
- Tests 50Ω & 75Ω coaxial cable and 100Ω UTP shielded or unshielded cable
- Distance resolution: 1 ft.
- Accuracy: open ±(7% +4 ft.); short ±(10% +4 ft.)
- Size: 7.0"L x 2.8"W x 1.2"H • Wt.: 1.5 lbs.

Includes: Manual, alligator clip to BNC adapter (7"L), carrying case and 4 AA alkaline batteries

Part No.	Description	1	10
171352	Network cable tester	$169.95	$152.95

Fluke 1520 4000 Count Analog/Digital MegOhMeter

- Test voltages of 250/500/1000V
- Insulation resistance ranges: 4.000MΩ to 4000MΩ
- Accuracy: 2% + 2 counts (0.2MΩ to 100MΩ); 10% + 2 counts above
- LO-Ohms range: 40.00Ω
- 4000Ω resistance range
- Measures AC/DC voltage up to 600V
- Auto-shut off after 15 minutes of inactivity • Bar graph
- Size: 14.0"L x 4.4"W x 8.5"H
- Weight: 3.8 lbs.
- Three-year manufacturer's warranty

Includes: 4 "C" cell batteries; 2 each of test probes, alligator clips, and test leads; manual, strap and carrying case

Part No.	Model Number	1	5
182908	Fluke 1520	$648.95	$618.95

RS232 Signal Adapter/Splitter

- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts

Part No.	Description	1	10	100
105195	Tri-port serial adapter	$7.49	$6.49	$5.95

Fluke 620R Cable Meter

- Locates wiring/connection errors (distance to the open or short)
- Measures cable length (ranges: 1 to 999 feet with 1 foot resolution; 5% ±3 ft. accuracy)
- Portable and easy to use
- Single person operation
- Detects shorts, opens, crossed wiring, reversed wiring and split pairs
- Displays in feet or meters
- Tests all LAN cable types: UTP, STP, FTP, and Coax
- Tests 2/3/4 wire pairs
- Size: 7.3"L x 3.9"W x 1.8"H • Weight: 0.8 lbs.
- One-year manufacturer's warranty

Part No.	Model Number	1	5
182027	FLK620R	$479.95	$455.95

RS232 Mini-Tester with Status LEDs

Tests any RS232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.

Part No.	Description	1	10	100
26729	Mini-tester	$8.95	$7.95	$7.24

Miniature RS232 Breakout Box for Quick Design Changes

Design new interfaces or modify old ones quickly and easily. Completely self-contained. Connectors: male to female DB25.

Includes: 25 each 22 AWG wire jumpers and machine tool sockets

Part No.	Description	1	10	100
11181	Breakout box	$8.45	$7.55	$6.85

RS232 Loopback Tester

The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20 and 15 to 17. Connectors: male to female DB25.

Part No.	Description	1	10	100
22728	Loopback tester	$6.95	$6.25	$5.59

Flexible Multilink RS232 Tester and Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20 and 22 on the DTE and DCE sides. Provides signal status at a glance. Complete cable "breakout" and reconfiguration. Connectors: DB25 male and DB25 female.

- Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H

Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10	25
25945	Tester/breakout box	$22.95	$19.95	$17.95

Digital Multimeter Quick Selection Guide

*See indicated page for more details on each product

All have VDC, VAC, Resistance and Current, except as noted

Part Number	Best Sellers	Mfr. No	Page*	Features: Display Count	Analog Bargraph	RS232 PC Interface	Autorange	True RMS	Standard Measurement Functions: Capacitance	Inductance	Frequency	Temp.	Special Measurement Functions: Diode Test	Logic Test	Continuity Test	Transistor h_{FE} Test	Price
Handheld Type																	
27115	✔	Metex M3800	119	2000													$39.95
119212	✔	JE110	118	2000									✔			✔	17.95
192647		Wavetek 10XL	118	2000									✔		✔		39.95
197958		Extech MV110	117	2000									✔		✔	✔	38.95
192621		Wavetek/MM 15XL	118	2000									✔	✔	✔		59.95
197966		Extech MV120	117	2000					✔			✔	✔		✔	✔	68.95
192604		Wavetek 23XT	118	2000								✔	✔	✔	✔	✔	74.95
177480	✔	AEEC2890	118	2000					✔		✔	✔	✔		✔	✔	49.95
141250		BelMerit DX405	118	2000					✔		✔		✔		✔	✔	69.95
155483		Metex ME-21	119	2000	✔	✔					✔		✔	✔	✔		59.95
192575		Wavetek 25XT	118	2000					✔		✔		✔	✔	✔	✔	79.95
147096		BelMerit DX460L	118	2000					✔	✔	✔		✔	✔	✔	✔	99.95
155475		Metex ME-22	119	2000	✔	✔					✔	✔	✔	✔	✔	✔	79.95
160813		Metex M3640D	119	2000	✔	✔			✔		✔	✔	✔		✔	✔	99.95
155491		Metex ME-22T	119	2000	✔	✔		✔			✔	✔	✔	✔	✔	✔	89.95
192639		Wavetek/MM DM78A	118	3200	✔					(No current)			✔		✔		34.95
101936		DM333	118	3200	✔		✔						✔		✔		67.95
182035	✔	Fluke 73-III	120	3200	✔		✔						✔		✔		148.95
192612		Wavetek/MM 35XL	118	3200	✔		✔		✔				✔		✔		69.95
192583		Wavetek/MM AC40A	121	4000			✔			(No DC current)					✔		79.95
163029		TPI 255	121	4000			✔								✔		99.95
163037		TPI 296	121	4000	✔		✔	✔			✔		✔		✔		189.95
163011	✔	TPI 183	121	4000	✔	✔	✔	✔	✔		✔		✔		✔		189.95
117372		Metex M3850D	119	4000	✔	✔	✔		✔		✔	✔	✔		✔	✔	109.95
137461	✔	Metex M3860D	119	4000	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	139.95
160821		Metex M3860M	119	4000	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	126.95
198694		Wavetek/MM DM73B	118	3400						(No current)					✔		49.95
192655		Fluke 175	120	6000	✔		✔	✔	✔		✔		✔				168.95
192663		Fluke 177	120	6000	✔		✔	✔	✔		✔		✔				188.95
185535	✔	Fluke 179	120	6000	✔		✔	✔	✔		✔	✔	✔				208.95
190967		Fluke 110	120	6000	✔		✔	✔	✔		✔		✔	✔	✔		98.95
190975		Fluke 111	120	6000	✔		✔	✔	✔		✔		✔	✔	✔		128.95
185527		Fluke 112	127	6000	✔		✔	✔	✔		✔		✔	✔	✔		149.95
136590	✔	Mastech MY65	119	20,000					✔		✔				✔	✔	69.95
144872		Metex M4640A	119	20,000	✔	✔			✔		✔		✔		✔	✔	139.95
195670		Fluke 87-IV	120	50,000	✔		✔	✔	✔		✔	✔					299.95
185199		B&K BK5360	121	50,000	✔		✔	✔	✔		✔		✔		✔		174.95
185201	✔	B&K BK5380	121	50,000	✔		✔	✔	✔		✔		✔		✔		199.95
164312		Fluke 89-IV	120	50,000	✔		✔	✔	✔		✔	✔	✔		✔		349.95
182043	✔	Fluke 189	120	50,000	✔		✔	✔	✔		✔	✔	✔		✔		398.95
Bench Type																	
160830		Fluke 8010A	120	2000													199.95
132564		DM441	121	20,000				✔			✔		✔			✔	229.95
166852		Metex MXD4660A	121	20,000	✔	✔		✔			✔		✔	✔	✔	✔	249.95

EXTECH INSTRUMENTS

3½-Digit Multimeters with Adjustable Viewing Angle

- Adjustable 1" LCD display for better viewing angle
- Auto power off
- Improper test lead position alarm alerts user if position does not match function
- Accuracy: ± 0.5% for DCV
- Resolution: 100uV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** (197958) 20uA – 10A; (197966) 20mA – 20A
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** (197966) 2nF – 20uF
- **Temperature range:** (197966) -40˚C to 1000˚C
- Tests diode, continuity, and transistor h_{FE}
- Size: 3.5"W x 1.3"D x 7.3"H
- Weight: 0.6 lbs.

Tiltable Screen

197958

197966

NEW

Includes: Test leads, protective holder, 9V battery and temperature probe (for 197966 only)

Part No.	Product No.	Description	1	10	25
197958	MV110	Basic DMM	$38.95	$34.95	$32.95
197966	MV120	Basic DMM Plus capacitance and temperature	68.95	61.95	58.95

We'll Send It Today
99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Part Number Color Code
New Sale Refurbished Closeout

3½-Digit Pocket Multimeter

- **DC voltage ranges:** 200mV, 2V, 20V, 200V, 1000V
- **AC voltage ranges:** 200V, 750V
- **DC current ranges:** 200µA, 2mA, 20mA, 200mA, 10A
- **Resistance ranges:** 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- Diode and continuity test
- 0.5" digit height
- Removable test leads
- One-year warranty
- Size: 2.6"W x 1.0"D x 4.8"H
- Weight: 0.5 lbs.

Includes: 9V battery

Part No.	Description	1	10	50
119212	Pocket multimeter	**$17.95**	**$15.95**	**$14.49**

2,000 Count Multimeter with Temperature and Frequency Measurement

- 3½-digit LCD (1.0" digit height)
- Resolution: 100µV minimum
- **DC voltage ranges:** 200mV to 1000V
- **AC voltage ranges:** 200mV to 700V
- **DC/AC current ranges:** 200µA to 10A
- **Resistance ranges:** 200Ω to 200MΩ
- **Capacitance ranges:** 2nF to 20µF
- **Frequency**: 20kHz
- Weight: 1.6 lbs.
- **Temperature range:** -20˚C to 1000˚C
- Diode, transistor & continuity testing
- Data hold switch
- Size: 4.0"W x 2.0"D x 8.0"H

Includes: Manual, probes, and 9V battery

Part No.	Product No.	1	10
177480	AEEC2890	**$49.95**	**$44.95**

Autoranging 3,200 Count Multimeter

- 3¾-digit (0.53" digit height) LCD with analog bar graph
- Resolution: 100µV minimum
- **DC voltage ranges:** 320mV to 1000V
- **AC voltage ranges:** 320mV to 750V
- **DC/AC current ranges:** 320µA to .32A
- **Resistance ranges:** 320Ω to 32.59MΩ
- Diode/continuity test
- Auto range
- Auto power off
- Data hold
- Size: 7.7"L x 3.9"W x 1.5"H
- Weight: 1.5 lbs.

Part No.	Product No.	Description	1	10
101936	DM333	3¾-digit meter	**$67.95**	**$59.95**

WAVETEK 10 & 11-Function Multimeters

192604

192575

- **Resolution:** 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 200µA – 10A
- NPN/PNP transistor, TTL/CMOS logic and diode test
- 2000 count
- Continuity beeper
- Data hold
- Size: 7.2"L x 3.1"W x 1.5"H
- One-year warranty

192604: 23XT
- Unique voltage Safety Tester®
- 10 functions/28 ranges & 4 voltage testers
- **Resistance ranges:** 200Ω – 2000MΩ
- **Temperature:** -20˚ to +750˚C (-4˚ to 1400˚F)

192575: 25XT
- 11 functions/32 ranges
- Zero adjust knob
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 200pF – 20mF
- **Frequency:** 40kHz

Part No.	Model Number	1	10
192604	23XT	**$74.95**	**$69.95**
192575	25XT	**79.95**	**71.95**

WAVETEK Meterman Probe Style Pen Meter

NEW

- Smallest Probe Style DMM that allows easy, one-hand operation
- **DC voltage ranges:** up to 600V
- **AC voltage ranges:** up to 600V
- **Resistance ranges:** up to 34MΩ
- Superior 0.5% accuracy
- 3400 count
- Analog bar graph
- Auto power off
- Continuity beeper
- One-year warranty
- Size: 7.8"L x 1.4"W x 1.1"D

Includes: alligator clip, ground test lead, spare probe tip and batteries

Part No.	Model Number	1	10
198694	DM73B	**$49.95**	**$44.95**

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

WAVETEK Meterman 5-Function Multimeter

- 3200-count display with analog bar graph
- 5 functions/16 ranges
- Data hold
- Auto-off saves batteries
- **Resolution:** 0.1mV maximum
- **DC voltage ranges:** 320mV – 450V
- **AC voltage ranges:** 32mV – 450V
- **Resistance ranges:** 320Ω – 32MΩ
- Diode test and continuity beeper
- Size: 4.3"L x 2.1"W x 0.4"D
- One-year warranty

Includes: Case

Part No.	Model Number	1	10
192639	DM78A	**$34.95**	**$31.49**

WAVETEK 7-Function Multimeter

- Unique voltage Safety Tester™
- 7 function/22 ranges & 6 range volt tester
- Large 17mm (.67") display
- 2000 count
- **Resolution:** 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200V – 750V
- **DC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- Safety tester: 6, 12, 24, 50, 110 and 220 volts
- Diode test and continuity beeper
- Size: 6.1"L x 2.8"W x 1.3"H
- One-year warranty

Part No.	Model Number	1	10
192647	10XL	**$39.95**	**$34.95**

WAVETEK Meterman 8-Function Multimeter

- 8 functions/30 ranges
- 2000 count
- **Resolution:** 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 2000Ω
- Logic: TTL, up to 20MHz, pulse width >25ns
- Diode test and continuity beeper
- Size: 6.1"L x 2.8"W x 1.3"H
- One-year warranty

Part No.	Model Number	1	10
192621	15XL	**$59.95**	**$54.95**

BelMERIT 3½-Digit Multimeters

141250

147096

- Large 0.7" LCD digit height
- Function and range annunciators
- **DC voltage ranges:** 200mV-1000V
- **AC voltage ranges:** 200mV-750V
- **DC/AC current ranges:** 200µA-10A (fuse protected)
- **Frequency ranges:** 2kHz-20MHz
- Auto power off
- ZIN = 10MΩ
- Diode and continuity test
- Input warning beeper
- Data hold

Includes: Manual, test probes and 9V battery

141250: Basic Model with Transistor h_{FE}
- **Resistance:** 200Ω-20MΩ
- **Capacitance:** 2nF-20µF
- Transistor h_{FE} (NPN/PNP)

147096: Inductance, Extended Capacitance, TTL and CMOS Logic Tests and Peak Hold
- **Resistance:** 200Ω-20MΩ
- **Capacitance:** 2nF-2000µF
- Peak hold
- **Inductance:** 20mH-20H
- TTL and CMOS logic tests

Part No.	Product No.	Description	Size (W x D x H)	Weight (lbs.)	1	10
141250	DX405	3½-digit meter	4.0" x 2.3" x 8.0"	1.5	**$69.95**	**$62.95**
147096	DX460L	3½-digit meter	4.0" x 1.5" x 8.0"	2.7	**99.95**	**89.95**

WAVETEK Meterman 8-Function Multimeter

- 8 functions/26 ranges
- Large digital and analog bar graph display
- 3200 count
- Long 1000 hour battery life with auto off for power saving
- **Resolution:** 0.1mV maximum
- **DC voltage ranges:** 320mV – 600V
- **AC voltage ranges:** 32mV – 600V
- **DC current ranges:** 320µA – 10A
- **AC current ranges:** 320mA – 10A
- **Resistance ranges:** 320Ω – 32MΩ
- **Capacitance ranges:** 32µF – 32mF
- Diode test and continuity beeper
- Data hold
- Size: 6.1"L x 2.8"W x 1.3"H
- One-year warranty

Part No.	Model Number	1	10
192612	35XL	**$69.95**	**$62.95**

METEX® 3½-Digit Multimeter

0.5" Digit Height • LCD Readout

- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV - 100V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 20µA - 20A
- **Resistance ranges:** 200Ω - 20MΩ
- Auto zeroing
- Input impedance: 10MΩ
- Overload protection: 1000VDC/750VAC
- See page 110 for compatible leads (P/Ns: 77745, 77770, 21856, 21864)
- Size: 3.5"W x 1.3"D x 6.8"H
- Weight: 1.2 lbs.
- One-year warranty

Includes: Probes, carrying case, manual & 9V battery

Part No.	Product No.	Description	1	10	50
27115	M3800	3½-digit	**$39.95**	**$35.95**	**$32.49**

METEX® 3½-Digit Multimeter with RS232 & Analog Bar

- 3½-digit LCD (.65" digit height) with analog bar
- Data hold
- Computer interface (RS232C); DB9M/F cable w/ DOS/Windows® software (3.5" diskette)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 2mA - 20A
- **Resistance ranges:** 200Ω - 2000MΩ
- **Frequency ranges:** 2kHz - 20MHz
- Diode, logic test and continuity test
- One-year warranty
- Size: 3.0"W x 1.5"D x 7.2"H • Weight: 1.8 lbs.

Includes: Manual, probes, 9V battery and software

Part No.	Product No.	1	10	25
155483	ME-21	**$59.95**	**$53.95**	**$44.95**

METEX® 3½-Digit Multimeters with RS232, Analog Bar & Temperature

155475

- 3½-digit LCD (.65" digit height) with analog bar
- Data hold
- Computer interface (RS232C); DB9M/F cable with DOS/Windows® software (3.5" diskette)
- True RMS (P/N 155491 only)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 2mA - 20A
- **Resistance ranges:** 200Ω - 2000MΩ
- **Frequency ranges:** 2kHz - 20MHz
- **Temperature:** -40˚C - 1200˚C @ 1˚C resolution
- Diode, transistor h_{FE} logic test and continuity test • One-year warranty
- Size: 3.0"W x 1.5"D x 7.2"H • Weight: 1.9 lbs.

Includes: Operating manual, probes, K-type thermocouple, 9V battery and software

Part No.	Product. No.	1	10	25
155475	ME-22	**$79.95**	**$69.95**	**$62.95**
155491	ME-22T (true RMS)	**89.95**	**79.95**	**71.95**

METEX® 3½-Digit Multimeter w/ RS232 & Dual Display

- Dual displays for comparative measurements
- 3½-digit LCD w/ 2000 counts (.65" digit height)
- Auto/min/max/data hold function
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 2mA - 20A
- **Resistance ranges:** 200Ω - 2000MΩ
- Tests continuity, diode, transistor h_{FE}, frequency, capacitance and temperature
- One-year warranty
- Size: 3.2"W x 1.2"D x 7.1"H • Weight: 1.8 lbs.

Includes: PC interface cable, probes, temperature probe, manual, software and 9V battery

Part No.	Product No.	1	10	25
160813	M3640D	**$99.95**	**$89.95**	**$79.95**

METEX® 3¾-Digit Multimeter w/ RS232, Temperature & Autorange

- 3¾-digit LCD (⅝" digit height)
- Computer interface (RS232C) w/ software (3.5") and cable
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 400mV - 750V
- **DC/AC current ranges:** 400µA - 20A
- **Resistance ranges:** 400Ω - 40MΩ
- **Temperature:** -40˚C to +1200˚C
- Diodes and continuity • Data hold switch
- Measures transistor h_{FE}, frequency, and capacitance
- Autoranging all scale settings • One-year warranty
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.8 lbs.

Includes: Manual, software, RS232 interface cable, temperature probe and probes

Part No.	Product No.	1	10	25
117372	M3850D	**$109.95**	**$99.95**	**$89.95**

METEX® 3¾-Digit Multimeter w/ RS232, Dual Display, Inductance & True RMS

- Dual displays for comparative measurements
- 3¾-digit LCD (⅝" digit height)
- True RMS
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 400mV - 750V
- **DC/AC current ranges:** 400µA - 20A
- **Resistance ranges:** 400Ω - 40MΩ
- **Temp.:** -40˚C to 1200˚C; 1˚ resolution
- Measures inductance, capacitance, transistor h_{FE} and frequency
- Computer interface (MT/RS232C) with software and cable
- Autoranging all measurement settings
- One-year warranty
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.9 lbs.

True RMS

Includes: 9V battery and software

Part No.	Product No.	1	10
137461	M3860D	**$139.95**	**$125.95**

METEX® 3¾-Digit Multimeter with RS232, Power Measurements, True RMS & Multi-Display

- Multi-display: 4 simultaneous displays for relative and comparative measurements
- 3¾-digit LCD (⅝" digit height)
- True RMS
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 400mV - 750V
- **DC/AC current ranges:** 400µA - 20A
- **Resistance ranges:** 400Ω -10MΩ
- **Temperature:** -40˚C to 1200˚C; 1˚ resolution
- **Capacitance ranges:** 4nF to 400µF
- **Frequency ranges:** 4kHz to 40MHz
- Measures transistor h_{FE} and wattage
- 2.5 measurements per second • One-year warranty
- Computer interface (RS232) w/ cable and software
- Size: 3.2"W x 1.2"D x 7.5"H • Weight: 2.0 lbs.

SALE

Includes: 9V battery, probes and manual

Part No.	Product No.	1	10
160821	M3860M	**$126.95**	**$113.95**

METEX® 4½-Digit Multimeter w/ RS232 & Multi-Display

⅝" Digit Height • LCD Readout

- Multi-display: 4 simultaneous displays for relative and comparative measurements
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 2mA - 20A
- **Resistance ranges:** 200Ω - 20MΩ
- **Capacitance ranges:** 20nF to 200µF
- **Frequency ranges:** 20kHz to 20MHz
- Diode/continuity: measures forward resistance of a semiconductor junction in kΩ a test current of approximately 1mA
- Measures transistor h_{FE}
- Size: 3.3"W x 1.5"D x 7.5"H • Weight: 2.0 lbs.
- LCD size: 2.4"W x 1.3"H • One-year warranty

Includes: Software, test leads, PC interface, manual and 9V battery

Part No.	Product No.	1	10
144872	M4640A	**$139.95**	**$125.95**

MASTECH Our Lowest Priced 4½-Digit Multimeter

- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 2V - 700V
- **DC/AC current ranges:** 2mA - 10mA
- **Resistance ranges:** 200Ω - 200MΩ
- **Capacitance ranges:** 200pF to 20µF
- Measures transistor h_{FE} & continuity
- Hold button • Auto power off
- Size: 3.9"W x 1.9"D x 8.0"H
- Weight: 1.5 lbs. • One-year warranty

Includes: Protective boot, 9V battery, probes and manual

Part No.	Product No.	1	10	25
136590	MY65	**$69.95**	**$62.95**	**$56.95**

Fluke 110 Series 6000 Count Digital Multimeters

185527

- Basic DC accuracy of 0.7%
- True RMS reading
- Autoranging
- Min./max./average functions
- CAT III 600V rated
- Resolution: 1mV maximum
- **DC/AC voltage ranges:** 6V – 600V
- **Resistance ranges:** 600Ω – 40MΩ
- **Capacitance ranges:** 1000nF – 9999µF
- **Frequency ranges:** (voltage input) 5Hz – 50kHz
- Continuity testing
- Size: 11.8"L x 7.0"W x 3.0"H • Weight: 1.3 lbs.
- Three-year manufacturer's warranty

190975 (Fluke 111)/185527 (Fluke 112):
- Backlight display (Fluke 112 only)
- **AC current:** 10A
- **DC current ranges:** 6A and 10A

Part No.	Model No.	Price
190967	Fluke 110	$98.95
190975	Fluke 111	128.95
185527	Fluke 112	149.95

Fluke 73 Series III 3200 Count Analog/Digital Multimeter

- 3200 count digital display with 31 segment analog bar graph
- Cat II 600V rating with overvoltage protection
- Automatic touch hold
- Default auto range mode
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 320mV – 600V
- **DC/AC current ranges:** 320mA – 10A
- **Resistance ranges:** 320Ω – 32MΩ
- Diode and continuity test
- Size: 6.6"L x 3.0"W x 1.1"H • Weight: 0.8 lbs.
- Three-year manufacturer's warranty

Part No.	Model No.	1	5
182035	Fluke 73 III	$148.95	$138.95

Fluke 8010A Multimeter

The Fluke 8010A is a portable, bench-type, digital multimeter with 3½ digit liquid crystal display(LCD).

- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 20µA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- **Conductance ranges:** 2µS – 200nS
- Size: 7.5"W x 9.6"D x 2.5"H • Weight: 2.6 lbs.

SALE

Part No.	Model No.	1	5
160830	Fluke 8010A	$199.95	$189.95

See page 117 for Digital Multimeter Comparison Chart

Fluke 175/177/179 6000 Count Digital Multimeters

185535

- True RMS reading
- Min./max./average functions
- Auto hold and manual hold
- IEC 1010 rating Cat IV 600V/ Cat III 1000V
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 600mV – 1000V
- **DC/AC current ranges:** 60mA – 10A
- **Resistance ranges:** 600Ω – 50MΩ
- **Capacitance ranges:** 1000µF – 9999µF
- **Frequency ranges:** (voltage input) 2Hz - 100kHz; (current input) 2Hz - 30kHz;
- **Temperature:** -40 to +400˚C (-40 to +725˚F)
- Size: 6.3"L x 3.3"W x 9.2"H • Weight: 1.5 lbs.
- Lifetime manufacturer's warranty

192655: Fluke 175 Multimeter
- Basic DC accuracy of 0.15%

192663: Fluke 177 Multimeter
- Basic DC accuracy of 0.09% • Backlight display

185535: Fluke 179 Multimeter
- Basic DC accuracy of 0.09% • Backlight display
- Temperature measurement is C˚ and F˚

Part No.	Model No.	1	5
192655	Fluke 175	$168.95	$159.95
192663	Fluke 177	188.95	178.95
185535	Fluke 179	208.95	187.95

Fluke 99 Series B 100MHz ScopeMeter®

Fluke ScopeMeter® 99 Series B is one of the most powerful handheld digital storage oscilloscopes used by more engineers worldwide than any other.

- 100MHz bandwidth
- Dual-channel DSO with 5 GS/s repetitive sampling provides excellent signal fidelity
- Extensive trigger capabilities
- Cursor measurements
- 30k deep memory ScopeRecord™
- True RMS, 3000 count DMM with 0.5% accuracy
- Three-year manufacturer's warranty
- Size: 5.5"W x 2.5"D x 10.8"H • Weight: 7.6 lbs.

Part No.	Model No.	1	5
164099	Fluke 99B-003R	$1749.95	$1574.95

Fluke 1520 4000 Count Analog/Digital MegOhMeter

- Test voltages of 250/500/1000V
- Insulation resistance ranges: 4.000MΩ to 4000MΩ
- Accuracy: 2% + 2 counts (0.2MΩ to 100MΩ); 10% + 2 counts above
- LO-Ohms range: 40.00Ω
- 4000Ω resistance range
- Measures AC/DC voltage up to 600V
- Auto-shut off after 15 minutes of inactivity • Bar graph
- Size: 14.0"L x 4.4"W x 8.5"H
- Weight: 3.8 lbs.
- Three-year manufacturer's warranty

Includes: 4 "C" cell batteries; 2 each of test probes, alligator clips, and test leads; manual, strap and carrying case

Part No.	Model Number	1	5
182908	Fluke 1520	$648.95	$618.95

Fluke 89-IV & 189 50,000 Count Multimeters w/ Data Logging

182043

- Digital and analog bar graph display
- Backlight with 2 brightness levels
- Fast auto range
- AC/DC true rms
- Resolution: 1µV maximum
- **DC/AC voltage ranges:** 50mV – 1000V
- **DC/AC current ranges:** 500µA – 10A
- **Capacitance ranges:** 1.1nF – 50mF
- **Frequency ranges:** 500Hz – 1MHz
- **Temperature:** -200˚C (-328˚F) to 1350˚C (2462˚F)
- Conductance, diode testing and continuity function capable
- Data logging: 288 intervals stored; 100 readings
- Size: 8.0"L x 3.9"W x 2.0"Thick • Weight: 2.0 lbs.

182043: Resistance ranges: 500Ω – 500MΩ
- Dual-rating compliance CAT IV compliance rated @ 1000V

164312: Resistance ranges: 500Ω – 30MΩ

Part No.	Model No.	1	5
164312	Fluke 89 IV	$349.95	$314.95
182043	Fluke 189	398.95	378.95

Fluke 87 Series IV 50,000 Count Analog/Digital Multimeter

- 50,000 count digital and 51 segment bar graph display
- Backlight with 2 brightness levels
- AC/DC true RMS
- Resolution: 1µV maximum
- **DC voltage ranges**: 50mV to 1000V
- **DC current ranges**: 500µA to 10A
- **AC voltage ranges**: 50mV to 1000V
- **AC current ranges**: 500µA to 10A
- **Resistance ranges**: 500Ω to 30MΩ
- **Conductance range**: 50nS
- **Capacitance ranges**: 1.1nF to 50mF
- **Frequency ranges**: 500Hz to 999.99kHz
- **Temperature range**: -200˚C (-328˚F) to 1350˚C (2462˚F)
- Size: 3.9"W x 2.0"D x 8.0"H • Weight: 1.2 lbs.

Part No.	Model No.	1	5
195670	Fluke 87 series IV	$299.95	$269.95

Fluke 123 20MHz Industrial ScopeMeter®

Scope,15-Function Meter & Recorder

The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, control and power systems. It features a breakthrough in scope technology called Connect-and-View™. The Fluke 123 automatically recognizes signal patterns and automatically sets up correct triggering, timing and amplitude for stable displays of complex industrial signals.

- **Scope:** dual-input 20MHz oscilloscope with 1.25 GS/s repetitive sampling rate
- **Meter:** dual-input 5000-count True RMS meter with ohms, capacitance, temperature and much more
- **Recorder:** dual-channel TrendPlot™
- Three-year manufacturer's warranty
- Size: 4.5"W x 2.0"D x 9.1"H • Weight: 5.8 lbs.

Part No.	Model No.	Price
162747	Fluke 123-003	$899.95

50,000 Count Digital Multimeters with Analog Bar Graph

BK5360 & BK5380

- BK5380 has better accuracy and resolution in some functions
- True RMS reading
- Auto and manual ranging
- Large LCD display provides easy readability, all test parameters in clear view (0.55" digit height)
- AC/DC voltage protection
- Continuity and diode testing
- CE safety approved
- Basic DC accuracy: BK5360 – 0.1%; BK5380 – 0.025%
- **DC voltage:** 500mV to 1000V (10uV to 100mV resolution)

SALE

185199

BK PRECISION

	BK5360	BK5380
	Ranges/Resolution	Ranges/Resolution
AC Voltage	500mV–750V/100µV–1V	500mV–750V/10µV–100mV
DC Current	5mA–10A/100nA–1mA	500µA–10A/10nA–1mA
AC Current	5mA–1A/1µA–10mA	500µA–10A/10µA–1mA

- **Resistance**: 500Ω to 50MΩ (10mΩ to 1kΩ res.)
- **Capacitance**: 50nF to 50mF (10pF to 10µF res.)
- **Frequency**: 0.6Hz to 500kHz
- **Duty cycle** (BK5360 only)
- Size: 7.5"L x 3.2"W x 1.6"H • Weight: 1.5 lbs.

Includes: Probes and manual

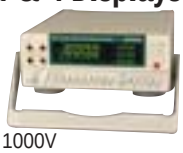
Part No.	Product No.		1	10
185199	BK5360	~~Reg. $209.95~~	$174.95	$134.95
185201	BK5380	~~Reg. $279.95~~	199.95	149.95

20,000 Count Benchtop Digital Multimeter

- $4^1/_2$-digit display, 5-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 100µV max.
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 2mA - 10A
- **Resistance ranges:** 200Ω - 20MΩ
- **Frequency** measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor h_{FE} measurement available • True RMS in AC range
- One-year manufacturer's warranty
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.

Part No.	Product No.	1	10	25
132564	DM441	$229.95	$214.95	$199.95

20,000 Count Benchtop Multimeter w/ RS232, Analog Bar & 4 Displays



- Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage & compare
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV to 1000V
- **AC voltage ranges:** 200mV to 750V
- **DC/AC current ranges:** 2mA to 20A
- **Resistance ranges:** 200Ω to 20MΩ
- **Frequency ranges:** 20kHz to 20MHz
- MIN., MAX., AVE., relative functions
- Logic, diode, transistor h_{FE} and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H • Weight: 7.5 lbs.

METEX®

Includes: Manual, power cable, probes and software

Part No.	Product No.	1	10
166852	MXD4660A	$249.95	$224.95

4,000 Count Digital Multimeters

TPI digital meters are field test proven to provide the specific needs for the troubleshooter.

- Carrying pouches provided with clamp meters
- Protective boots provided with multimeters
- Three-year warranty

Includes: Test leads, batteries and manual

Three-year Warranty!

† size with protective boot

Triple display True RMS

Pocket-sized with easy line distortion checking (see AC line Separator, below)

Applications with True RMS and AC/DC current (see AC line Separator, below)

Features		TPI 183	TPI 255	TPI 296
Digit Height		0.75"	0.45"	0.43"
AC/DC Volts		400mV to 1000V (750VAC)	4V to 600V	40V to 750V
Basic DC Accuracy		0.3%	0.3%	0.75%
AC/DC Amps		40µA to 10A	40A & 400A/NA	40A to 700A
HDR Mode		N/A	N/A	YES
True RMS		YES	N/A	YES
Resistance		400Ω to 40MΩ	400Ω to 40MΩ	400Ω to 40kΩ
Capacitance		10µF to 10000µF	N/A	N/A
Frequency		200Hz to 200kHz	N/A	1kHz & 10KHz
Diode Test/Continuity		YES	BUZZER	YES
Analog Bar Graph		YES	N/A	YES
Auto Range/Data Hold		YES/YES	YES/YES	YES/YES
Min./Max./Peak		(Min./Max. only)	YES	YES
Sleep Mode/Auto-Off		YES/N/A	N/A/YES	YES/N/A
RS232 (cable & software)		Included	N/A	N/A
Dimensions (L"xW"xH")		7.75 x 3.75 x 2.25†	7.5 x 3.0 x 1.5	9.0 x 3.25 x 1.75
CE or cULus Listed		cULus,UL3111-1,CE	cULus,UL3111-1,CE	cULus,UL3111-1,CE
Part Number		163011	163029	163037
Price	1 ea.	$189.95	$99.95	$189.95
	10 ea.	$169.95	$89.95	$169.95

Multi-Range Clamp Meter

- 3¾-digit; max. reading of 3999
- Resolution: 100mV maximum
- **Current ranges:** 399.9A, 600A (AC)
- **Voltage ranges:** 750VAC, 399.9VDC
- **Resistance range:** 3999Ω
- 0.5" digit height
- Tear drop jaws 1.3"(32mm) opening for ease of use
- Data hold and peak hold functions
- Compatible with P/N 162325, right
- Size: 8.0"L x 3.3"W x 1.5"D • Weight: 1.0 lb.
- One-year manufacturer's warranty

BelMERIT

Includes: 9V battery, test leads, manual and case

Part No.	Description	1	10
140644	Digital clamp meter	$69.95	$62.95

WAVETEK Meterman 5-Function Clamp Meter

- 4000 count display with bar graph
- Resolution: 0.1mV maximum
- **DC/AC voltage range:** 600V
- **AC current range:** 400A
- **Resistance range:** 400Ω
- Continuity test • Auto off
- 1.0" max conductor size • Autoranging
- Compatible with P/N 162325 AC line separator, right
- Data hold • One-year warranty
- Size: 11.4"L x 6.6"W x 2.1"D

Part No.	Model No.	1	10
192583	AC40A	$79.95	$71.95

Mini DC/AC Current Clamp Meter/Multimeter

- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Compatible with P/N 162325, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.
- One-year warranty

ACA*	20A, 200A	±1.2% + 5d
DCA	200A	±1.2% + 5d
ACV*	500V	±1.0% + 2d
DCV	200V	±0.8% + 1d
Resistance	200Ω	±1.2% + 1d
*Frequency Response		40-400Hz
Zero Adjust	External knob for DCA	

Requires: 9V battery not included (P/N 151095, pg 58)

Includes: Test leads, manual and case

Part No.	Description	1	10
115756	Mini DC/AC clamp meter	$119.95	$107.95

MABTECH 15A AC Line Separator for AC Current Clamp Meters

3-Prong US Connector Type Plug

- Maximum overload: 250VAC @ 15A
- X1 and X10 clamp areas
- Convenient 0.1"Dia. meter tip test points for neutral/earth/line
- Socket compatible with US & European connectors
- Size: 6.0" Lx1.9" W x 1.4"T • One-year warranty

Part No.	Description	1	10	25
162325	3-prong separator	$9.95	$8.95	$7.95

Part Number Color Code
New Sale Refurbished Closeout

Digital LCR Meter

SALE

- 3½-digit display (0.5" digit height)
- **Inductance ranges:** 200µH to 200H
- **Capacitance ranges:** 200pƒ to 2000µƒ
- **Resistance ranges:** 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 6.7"L x 3.3"W x 1.4"D
- Weight: 1.1 lbs.
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	1	10	25
127538	LCR meter	$139.95	$125.95	$118.95

EXTECH INSTRUMENTS

Passive Component LCR Meter

198678

NEW

- Measures L, C and R with secondary parameter: Q, D or R
- Accuracy of 0.7% for L & C, 0.5% for R
- Simultaneous displays of the primary parameter (L, C, or R) with the secondary parameter (Q, D, R)
- **Inductance ranges:** 2000.0uH to 2000.0H
- **Capacitance ranges:** 2000.0pF to 2000.0uF
- **Resistance ranges:** 20.000Ω to 20.000MΩ
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) (with C) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- 4½ digit backlit LCD display
- Bidirectional RS232 port with optional software
- Max./Min./AVG. recording with auto power off
- Size: 7.6"L x 3.6"W x 2.1"H • Weight: 0.8 lbs.

Includes: Test leads, alligator clips, 9V battery and holster

Part No.	Description	1	10
198678	LCR Meter	$178.95	$160.95
198811	Data acquisition software ..	28.95	25.95
100845	9VDC @ 200mA adapter	4.25	3.79

Digital Light Meter

- Measures in Lux and footcandle ranges
- Range: Lux – 0 - 50,000 Lux (3 ranges); footcandle – 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling • 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs. • One-year warranty

Part No.	Description	1	10
131764	Digital light meter	$99.95	$89.95

50mV/50A Current Shunt

- Current ranges: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A
- Size: 5.3"L x 1.2"W x 1.4"H

Part No.	Description	1	10	25
162309	Current shunt	$24.95	$22.49	$19.95

EXTECH INSTRUMENTS

Indoor/Outdoor Temperature Alarm

NEW

- Large 1.5" LCD display
- Displays indoor/outdoor temperature from -58˚ to 158˚F
- Single point alarm (external sensor): set alarm when temperature is above Hi-set or below low set point
- Dual point alarm (external sensor): set alarm when temperature is either outside of or within two set points
- Accurate to 1.8˚F with 0.1˚F resolution
- Audible alarm and red/green LED indicators
- Size: 2.75" x 2.75"

Includes: 10 ft. weatherproof outdoor sensor, built-in stand, AAA battery and hardware

Part No.	Description	1	10	25
198037	Temperature alarm	$18.95	$16.95	$15.95

Temperature/Humidity Meter w/ Min./Max. Memory

NEW

- Displays (%) relative humidity and temperature (˚C/˚F) simultaneously
- Min./Max. memory on both relative humidity & temperature with reset function
- Temperature range: -10˚C to 60˚C (14˚F to 140˚F);
- Humidity range: 10% to 99%
- 1" high readout • Size: 4.3"L x 3.9"W x 0.8"Thick

EXTECH INSTRUMENTS

Includes: Built-in tilt stand, AAA battery, and wall mounting bracket

Part No.	Description	1	10	25
198045	Temp./humid meter	$38.95	$34.95	$32.95

Temperature/Humidity Meter w/ Clock & Min./Max. Memory

NEW

- Large bright LCD displays for temperature, humidity, and time
- Temperature range: -10˚C to 60˚C (14˚F to 140˚F)
- Humidity range: 10 to 85%
- Clock function displays 12 hour time with AM/PM indication or 24 hour time
- Min./Max. memory function with reset for temperature and humidity
- Size: 4.3"L x 2.8"W x 0.8"Thick

EXTECH INSTRUMENTS

Includes: Built-in tilt stand, AAA battery and wall mounting bracket

Part No.	Description	1	10	25
198053	Temp/humid meter	$28.95	$25.95	$24.49

Digital Stopwatch/Up-Down Timer/Alarm/Calendar

NEW

- Water resistant housing, lithium battery, and 39" (1m) neckstrap
- Large display provides timing to 1/100th of a second
- Timing capacity: 9 hours, 59 minutes, 59.99 seconds
- Accurate to ±5 seconds/day
- Built-in memory recalls up to 10 laps
- Clock function (12/24hr) features programmable alarm with hourly chime
- Built-in calendar displays day, month, and date
- Countdown timer function features input ranges from one minute to 9 hours, 59 minutes

Part No.	Description	1	10	25
198029	Stopwatch/timer	$28.95	$25.95	$24.49

Mini Infrared Thermometer

- Measures -4˚F to 608˚F (320˚C) without contact
- Resolution of 1˚
- ˚F and ˚C selectable
- Large backlit display (0.36" digit height)
- Built-in laser pointer for better aim
- Fixed emissivity covers 90% of surface applications
- Narrow field of view – distance at 6" measures 1" target • Auto data hold

EXTECH INSTRUMENTS

Includes: 9V battery

Part No.	Description	1	10
170421	Infrared thermometer	$109.95	$99.95

IR and Contact Thermometer

- Precision for direct or non-contact temperature measurement
- Non-contact temperature range: -10˚C to 350˚C (14˚F to 662˚F)
- Built-in K-type thermocouple connector temperature range -50˚ to 1230˚C
- Non-contact measurement distance: 40"
- 0.1˚ resolution for infrared
- Easy readout 0.4" height LCD display
- Celsius and Fahrenheit display by push-button
- Microprocessor circuit assures maximum possible accuracy, special functions and features
- Records maximum and minimum readings on recall
- Data hold • Auto shut-off • One-year warranty

Requires: 9V battery (recommend P/N 151095, pg 58)

SALE

Includes: Manual and padded plastic case

Part No.	Description	1	10
153584	Infrared thermometer	$140.75	$126.65
123879	K-type temp probe	12.95	11.65

High Voltage AC/DC Test Probe

- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVRMS
- Accuracy: DC: ±1.5%, AC: ±5%
- Meter requires 10MΩ input impedance
- Input/output impedance: 1,000MΩ/1.1MΩ • Cable length: 39"
- Probe length: 14" • Weight: 0.8 lbs.

Part No.	Description	1	10
132290	High voltage test probe	$89.95	$80.95

TRIPLETT

AC Voltage Detector

- Test for the presence of AC voltage on outlets, circuit breakers, extension cords, light switches, power tools and AC motors
- Non-contact voltage probe • AC ranges: 50V–600V
- Visual and audible alerts • Pocket clip
- Size: 5.4"L x 0.65"W x 0.60"H

Part No.	Description	1	10
154907	AC voltage detector.....	$21.95	$19.95

AC/DC Circuit Tester

This tester will help you determine if a typical 3 wire outlet is 110V or 220V. Light will glow if neutral and hot lines are probed. A brighter glow will let you know if the outlet is 220V.

SALE

- Voltage ranges: 90V – 800V
- Size: (unit) 2.7"L x 0.7"W x 0.5" Thick

Part No.	Description	1	10	50
189309	Circuit tester	$1.95	$1.79	$1.59

RS232 12-Bit Data Acquisition Module

Only three commands are required to control this module (a typical command is 4 bytes). All configuration parameters are software programmable and are stored in non-volatile memory. Automatic baud rate detection from 1200 to 9600 baud with format of 8 data bits, 1 stop bit, and no parity. This data acquisition module offers 11 channels of 12-bit A/D inputs, 3 digital inputs, and 3 digital outputs. A/D inputs measure voltages from 0 to 5VDC. Digital inputs sense On/Off states with a range of –30 to +30VDC. Digital outputs control devices requiring 0 to 5VDC input voltage.

- I/O line connectors: DB25 female
- RS-232 connector: DB25 female
- Logging utility

NEW

Requires: 12VDC power supply (recommend P/N 100095, pg 72)

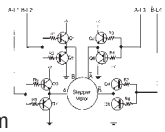
Part No.	Description	1	10
198088	RS-232 12-bit	$58.95	$52.95

12-Bit Analog/Digital DAC and Stepper Motor Control Board

- High speed serial port interface up to 230,400 bits/sec
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V input
- 24 digital I/O (TTL compatible), 11 analog channels with 12-bit resolution
- PWM, period measurement & stepper motor functions
- Free 32-bit DLL, OCX and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.

Includes: Manual

Driver Schematic



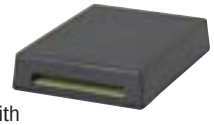
Suggested Components for External Driver Circuit

Part No.	Qty	Designator	Description	Price
29655	4	R1-R4	1kΩ,1/4W resistor (10 pc. min.)	$.19
30859	4	R5-R8	330Ω,1/4W resistor (10 pc. min.)	.19
25857	4	Q1-Q4	MJE 3055T transistor	.65
76970	4	D1-D4	1N4003 diode (10 pc. min.)	.04

Part No.	Description	1	10
109911	Analog/digital DAC board	$133.95	$119.95

Analog & Digital Data Acquisition & Control Module

31 Digital I/O & 8 Analog Channels



- Applications: education, engineering, robotics, remote monitoring, project development and diagnostics
- Operates from any host with an RS-232 port capable of 19,200 baud
- Analog: 8 analog channels with 0-5 volt input
- I/O port configuration: port a - 6 digital I/O lines or 5 analog channels; port b & d - 8 digital I/O lines; port c - 6 digital I/O lines; port e - 3 digital I/O lines or 3 analog channels
- Size: 4.4"L x 3.2"W x 1.0"H • Weight: 2.0 lbs.

Includes: Power supply, cables and 3.5" software

Part No.	Description	1	10
164072	Serial port data module	$129.95	$119.95

RS232 16-Channel Digital I/O Module and Buffer Module

198096

198109

This digital module can control up to 16 digital inputs or 16 digital outputs. Only three commands are needed to control these modules (typical command is 4 bytes). Automatic baud rate detection from 1200 to 9600 with a format of 8 data bits, 1 stop bit, and no parity. The digital I/O buffer module (P/N 198109) provides buffering and increased power handing (100mA). It offers I/O lines that can handle control voltages up to 50VDC. Each individual I/O can be individually defined as either an input or output by jumper settings. Plugs directly into the digital module through the DB25 connector. Enclosure for the digital I/O buffer module is available.

- RS-232 connector: DB25 female
- I/O line connector: DB25 female
- Demo program included

NEW

Requires: 12VDC @ 35mA power supply (recommend P/N 100095, pg 72)

Part No.	Description	1	10
198096	RS-232 16-channel I/O.....	$58.95	$52.95
198109	Digital I/O buffer	58.95	52.95
198686	Enclosure for P/N 198109	14.95	13.45

2-Channel Strain Gauge Input Module With 4½-Digit LED Display

With Digital I/O and Counter

NEW

Provides a cost effective solution for remote data acquisition and control of a wide range of industrial control systems yet robust with measurement capabilities such as analog I/O, digital I/O, and counters. The module is addressable allowing up to 256 units to be linked together via a two wire RS485 connection with a baud rate of 115.2kbps, provides 3000V isolation between the module and the network, a dual watchdog timer – one monitors the modules firmware while the other watches the traffic to the host computer.

Analog input:
- 2-channel input • Input type: mV, V, mA
- Accuracy: ±0.5% • Sampling rate: 10 samples/sec
- Input impedance: 20MΩ • Isolation: 3000VDC
- 1 excitation voltage output with range of 0 to +10V
- Max. output load: 40mA

Digital input/output:
- TTL level • 1 input and 4 output

Event Counter:
- 50Hz max. frequency • 1ms min. pulse width

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198117	2-channel input module	$294.95	$264.49

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

8-Channel Voltage and Current Input Module

- 6-differential & 2-single ended or 8-differential channels (jumper selectable)
- 16-bit resolution
- Accuracy: ±10%
- Input range: ±150mV, ±500mV, ±1V, ±5V, ±10V and ±20mA
- Sample rate: 10 samples/sec
- Common mode rejection @ 50/60Hz: 92dB min.
- Overvoltage protection: ±35V

NEW

Requires: 24VDC @ 2100mA power supply

Part No.	Description	1	10
198125	8-Ch. voltage & current	$184.95	$166.49

Relay Output and Isolated Digital Input Module

Digital Input:
- 4-isolated channels with common power
- Isolation voltage: 3750Vrms
- Input impedance: 3kΩ, 0.5W

Relay Output:
- 4 dry contact relays; two form "A" SPST, two form "C" SPDT
- Switching time: 10ms
- Contact rating: AC – 125V @ 0.6A; 250V @ 0.3A; DC – 30V @ 2A; 110V @ 0.6A
- Breakdown voltage: 500VAC
- Insulation resistance: 1000MΩ min @ 500VDC

NEW

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198133	Relay output module	$109.95	$98.95

8-Channel Thermocouple Input Module

- Input type: thermocouple, mV, V, mA
- 6-differential and 2 single-ended or 8-differential channels (jumper selectable)
- Accuracy: ±0.05%
- Thermocouple types: J, K, T, E, R, S, B, N, C
- Voltage ranges: ±15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V
- Current range: ±20mA
- Overvoltage protection: ±35V

NEW

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	5
198150	8-ch. thermocouple	$188.95	$169.95

Frequency Counter Module with 5-Digit LED Display

- 2-independent 32-bit counters
- Input frequency: 100kHz max.
- Input mode: isolated or non-isolated
- Isolation voltage: 3750Vrms
- Frequency measurement range: 1Hz to 100Hz
- Programmable built-in gate time: 1.0/0.1sec

NEW

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198141	Frequency counter module	$184.95	$166.49

Part Number Color Code
New Sale Refurbished Closeout

PC-Based Data Acquisition and Control Boards

193922

PCI Bus

193914

ISA Bus

197886

PCMCIA/PC-Card Bus

Analog & Digital Data Acquisition & Control Boards

- 8-channel A-to-D
- 12-bit resolution
- ±5V input range
- Zin: 50MΩ
- See group number to choose correct terminal board enclosure and cable
- Software available on page 125

Includes: InstaCal: installation and test utilities software

- Digital I/O: 3 input/4 output
- Three 16-bit counters
- 50kHz sample rate
- Data transfer: S/W polled, may be IRQ driven

Part No.	Group No.*	Product No.	1	5
193922	1	PCI-DAS08	$247.95	$222.95

- Digital I/O: 8 input/8 output
- 2-channel D-to-A (AO version only) 12-bit, ±5V output range
- 20kHz sample rate

Part No.	Group No.*	Product No.	1	5
193906	1	CIO-DAS08/JR	$147.95	$132.95
193914	1	CIO-DAS08/JR-AO	197.95	182.95

NEW

- Digital I/O: 5 input or output
- 20kHz sample rate

Part No.	Group No.*	Product No.	1	10
197886	3	PCM-DAS08	$298.95	$268.95

Digital Input/Output Boards – TTL Level

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source (P/N 197835: 64mA sink, 15mA source)
- Software available on pg 125
- See group number to choose correct terminal board, enclosure & cable

Includes: InstaCal: installation and test utilities software

NEW

- 24-bit digital I/O
- 3 each 8-bit ports: P/N 197827
- 2 each 8-bit and 4-bit ports P/N 197835

Part No.	Group No.*	Product No.	1	10
197827	1	PCI-DIO24	$88.95	$79.95
197835	1	PCI-DIO24H	148.95	133.95

- 24- (P/N 151511) or 48-bit (P/N 136784) digital I/O
- 8-bit ports

Part No.	Group No.*	Product No.	1	10
151511	1	CIO-DIO24	$68.95	$61.95
136784	—	AX5214H	99.95	89.95

- 48-bit digital I/O
- 8-bit ports

Part No.	Group No.*	Product No.	1	10
197894	4	PC-Card-DIO48	$198.95	$178.95

Digital Input/Output Boards – Relay Output/Opto-Isolated Input

- 8 relay outputs: 5 form-C, 3 form-A (28VDC @ 6A, 120VAC @ 120VAC; contact R = 100mΩ)
- Input range: 5-24VDC or VAC, 50-1000Hz; R_{in}: 450Ω
- Opto-isolated inputs: 500V isolation channel-to-channel and channel-to-ground
- See group number to choose correct terminal board, enclosure and cable

Part No.	Group No.*	Product No.	1	10
197843	1	PCI-PDIS08	$248.95	$223.95

Part No.	Group No.*	Product No.	1	10
197819	1	CIO-PDIS08	$198.95	$178.95

NEW

Serial Communications Boards – RS422/RS485

- Configured as COM1, COM2, COM3 or COM4
- RS422/RS485 cable length: 1.2km maximum

NEW

- 16C550 UART
- 460kbps
- PCI bus 2.1 compliant

Part No.	Product No.	1	10
197915	PCI-COM422/485	$198.95	$178.95
197923	PCI-COM422/485-2	248.95	223.95

- P/N 197860: RS422, RS232 & I-Loop with 16450 UART
- 56kbaud
- P/N 197878: Dual RS422 with 16550 UART

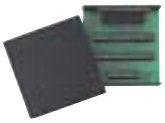
Part No.	Product No.	1	10
197860	CIO-COM422	$78.95	$70.95
197878	CIO-Dual422/450	118.95	106.95

- 16550 UART
- 56kbaud
- 32 network nodes with RS485

Part No.	Product No.	1	10
197907	PCM-COM422	$148.95	$133.95
198184	PCM-COM485	148.95	133.95

Terminal Boards, Enclosures & Cables*

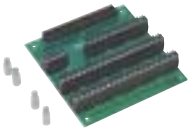
193965



193973 – shown with P/N 193965 (not included)

193949

193957



193990

198213

Group Number 1*

Part No.	Product No.	Description	1	5
193965	CIO-MINI37	Terminal board	$68.95	$62.10
193973	ENCMINI-37	Enclosure	28.95	26.10
193949	C37FF-2	Cable (ribbon)	24.95	22.50
193957	CF37FFS-5	Cable (shielded)	34.95	31.50

Group Number 2*

Part No.	Product No.	Description	1	5
193990	CIO-MINI50	Terminal board	$68.95	$62.10
194001	ENCMINI-50	Enclosure	28.95	26.10
198192	C50FF-2	Cable	24.95	22.49

Group Number 3*

NEW

Part No.	Product No.	Description	1	10
198213	PCM-TERM15	Terminal board/cable	$48.95	$43.95

Group Number 4*

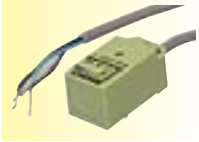
NEW

Part No.	Product No.	Description	1	5
193990	CIO-MINI50	Terminal board	$68.95	$62.10
194001	ENCMINI-50	Enclosure	28.95	26.10
198192	C50FF-2	Adapter cable	24.95	22.49
198205	CPCC-50M-4	Cable	98.95	88.95

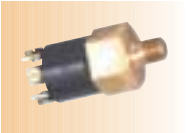
See Data Acquisition Software on Page 125

The Basics of PC-Based Data Acquisition, Analysis, and Control

Using your PC as a platform for the acquisition, analysis and control of physical data is both powerful and economical. Simply adding a card with analog and digital data acquisition and control capability, along with easy-to-use software, turns your desktop or laptop computer into a sophisticated instrumentation system.



A PC-based data acquisition and control system is comprised of five fundamental elements: sensors / transducers, analog-to-digital conversion with signal conditioning, digital sensing, analog and / or digital control, and software. The first consideration is the physical parameter or condition you wish to measure and record; it could be temperature, pressure, acceleration, vibration, sound intensity, and much more. Transducers convert physical parameters to electrical signals. Many transducers require signal conditioning (amplification, filtering, etc.), which is usually provided by the data acquisition card.



See Sensors On Page 41

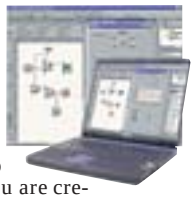
For most PC-based data acquisition systems, analog-to-digital conversion is typically handled with a plug-in board or card – commonly known as DAQ boards (PCI or ISA type). The key function of a DAQ board is to convert the analog signals coming in from the sensors into digital signals with which the PC can deal. The primary specifications to look for are number of channels, resolution, and sample rate.

Virtually all DAQ boards also have the capability of sensing digital input signals; for example, switch contacts. These signals are often used to initiate acquisition of analog data.

Once the data has been acquired and processed by the PC, the analog and digital output capability of a DAQ board can be used for control; i.e., "closing the loop".

A popular software program, SoftWIRE, is built in two windows. The first window holds the graphical program while the other window holds the user interface on a Visual Basic form.

Universal Library Graphical Programming for Visual Basic



194010: The Universal Library is a library of 65+ syntax commands in different programming languages. The library provides these commands plus the syntax format in its respective language.

194044/194036/194028: SoftWIRE is a graphical programming package for Visual Basic; one window holds the graphical program while the other holds the user interface on a Visual Basic form. By simply using the 130+ functions included with the software, you can click on the function, make connections to the controls with wires, provide your options, then run the program. While you are creating all these functions and connections, the software also provides the code in Visual Basic.

System requirements: PC with Pentium® 90 or higher; Windows® 95/98/2000/ME/NT4.0; Microsoft® Visual Basic 6.0 or later; VGA or higher resolution monitor; any Measurement Computing DAQ or GPIB board

Part No.	Description	1	5
194010	Universal Library	$48.95	$43.95
194044	SoftWIRE4/VB-Student	48.95	43.95
194036	SoftWIRE/VB-1YR	197.95	177.95
194028	SoftWIRE/VB-PPD	493.95	443.95

DAS-Wizard Software

Data Acquisition Direct to Microsoft Excel

DAS-Wizard is an add-in for Excel that controls your ComputerBoards or compatible data acquisition board and places your measurements directly into the cells of an Excel worksheet. A simple dialog box allows you to configure the data acquisition board and set the range of cells to place measurements.

System requirements: PC with Pentium® 90 or higher; Windows® 95/98/2000/ME/NT4.0; Microsoft® Visual Basic 6.0 or later; VGA or higher resolution monitor; any Measurement Computing DAQ or GPIB board

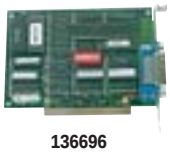
NEW

Part No.	Description	1	10
197851	DAS-Wizard	$148.95	$133.95

Industrial Communications

GPIB IEEE-488.2 Boards

177121



136696

164427

PCI Bus

- 1 MB/s transfer rates
- 1024 word FIFO buffer

Part No.	Product No.	1	10
177121	PCI-GPIB-1M	$399.95	$359.95

ISA Bus

- 300kB/s transfer rates
- On-board ROM callable firmware

Part No.	Product No.	1	10
136696	AX5488	$189.95	$169.95

PCMCIA/PC Card Bus

- 1 MB/s transfer rates
- 1024 word FIFO buffer

Part No.	Product No.	1	10
164427	PCM-GPIB	$289.95	$259.95

RS-422/RS-485 Optically Isolated Repeater

Optically isolates and protects RS-485 equipment while acting as a signal repeater to increase the number of possible nodes to more than 32. Converts from 4-wire RS-422 to 2-wire RS-485. A set of jumpers allows operation in either half-duplex or full-duplex mode for a versatile connection to virtually any RS-422 / RS-485 system.

- Isolation: 2,000 volts RMS for 1 min. optical isolation of data lines and ground
- Surge suppression: 6.5kV, working peak voltage, bidirectional
- Data rate: up to 460.8kbps
- Typical applications: RS485 to RS485 optical isolator; RS485 repeater; 4-wire to 2-wire converter; RS485 surge suppressor

NEW

Includes: 12VDC @ 300mA power supply

Part No.	Description	1	10
198061	RS-422/RS-485 Repeater	$138.95	$124.95

RS232 to RS485/422 Bidirectional Converters

117701

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS485: terminal block and RJ11 connections
- RS232: DB25 female connector
- Input: 110VAC; except P/N 129218 220VAC input
- Weight: 0.9 lbs. • One-year warranty

ATEN

Now a European Version!

197931: port powered
- Data rate: 100kbps

122956: features RS485SI optical isolation: 2000V
129218: features 220VAC input

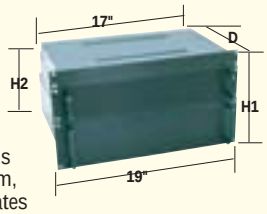
Includes: 9VDC @ 300mA power adapter

Part No.	Description	1	10
117701	RS232-485/422	$57.95	$51.95
197931	RS232-485/422	59.95	53.95
122956	RS232-485/422 OPT ISO	99.95	89.95
129218	RS232-485/422 (220 VAC)	42.95	36.95

Part Number Color Code
New Sale Refurbished Closeout

19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.



- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" Thick • Black front panel
- All enclosures have handles except P/N 132812

Includes: mounting screws

Part Number	Dimensions (In.) H1	H2	D	Weight (lbs.)	Pricing 1	10
132812	1.73	1.25	9.75	6.2	$34.95	$29.95
132821	3.46	3.0	9.75	7.9	41.95	37.95
132839	3.46	2.88	11.75	9.1	46.95	41.95
132847	5.22	4.75	11.75	10.6	51.95	46.95
132855	5.22	4.75	13.50	11.8	64.95	57.95
132863	8.56	8.0	13.50	15.4	84.95	74.95

19" Industrial Chassis with PC-AT 300-Watt Power Supply

EIA RS-310C Compliant

- Back panel with 12 open slots
- Supports one 3.5" and two 5.25" external accessible bays and two 3.5" internal bays
- Use with 14-slot PC-BUS compatible backplane P/N 135061, above right
- Removable disk drive bay w/ shock resistant design
- Front 12VDC cooling fan with removable air filter screen and mesh
- Waterproof front panel
- Color: gray • Weight: 37 lbs.
- Size: 16.8"L x 16.9"W x 7.0"H

Includes: Mounting hardware

Part No.	Description	1	10
146851	19" chassis w/ 300W PS	$295.95	$269.35

19" Rack Mount Enclosure for 14" Monitor

- Clear glass front panel
- Hinged door for accessing monitor controls
- Color: gray
- Weight: 30 lbs.
- Size: 19.0"W x 15.1"D x 14.0"H

Part No.	Description	1	10
136021	Enclosure for 14" monitor	$269.95	$244.95

19" Rack Mount Drawer with Keyboard and Trackball

- Occupies a single unit (IU) rack space
- 5-pin DIN connector for keyboard and DB9 connector for trackball
- Color: gray
- Size: 19"W x 13"D x 2.8"H
- Weight: 18 lbs.

Includes: Wrist pads, module and software

Part No.	Description	1	10
150471	Rack mount KB drawer ..	$239.95	$216.95

Embedded CPU Card for Intel Pentium Processors

- Socket 7-type
- Support Intel® Pentium® and MMX 75MHz to 233MHz, AMD K5 and K6, Cyrix 6x86, and M2 CPU
- Intel 82430TX2.1 and Winbond I/O chipset
- 128kB award license bios
- Four 72-pin SIMM socket or two 168-Pin DIMM socket expandable up to 128MB of memory
- On-board 512kb pipelined burst synchronous cache
- Reserved socket for DiskOnChip from M-system supports up to 72MB flash memory disk
- On-board: 2 IDE ports supports up to 4 IDE devices; floppy disk port supports up to 2 floppy drives; two serial ports, parallel port, two 5-pin header USB ports, 2 PS/2 (keyboard and mouse)
- Size: 13.3"L x 4.9"W
- Weight: 2.1 lbs.

Includes: Manual, cables, and hardware

Part No.	Description	1	10
174351	Embedded motherboard	$299.95	$269.95

16-Slot ISA-PCI-PICMG Passive AT Backplane

- Ten 16-bit ISA slots, four 32-bit PCI slots and two 48-bit PICMG slots
- LED indicators for ±5V/±12V
- Compatible with P/N 146851 (below left)
- Size: 12.5"L x 10.0"W
- Weight: 1.9 lbs.

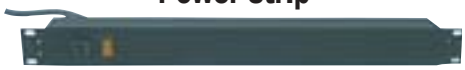
Part No.	Description	1	10
135061	Passive AT backplane	$129.95	$116.95

Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H
- Color: beige

Part No.	Description	1	10
149500	Cabinet mount plate	$39.95	$35.95

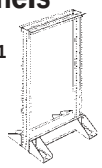
19" Rack-Mount 6-Outlet Power Strip



- Maximum rating: 15A, 125VAC, 60Hz
- 1875 watts continuous duty
- Outlets: 30-duplexed "U" grounded
- 6' 14/3 SJT black molded plug
- Circuit breaker protection
- Size: front plate: 19.0"L x 1.7"W; back cover: 17.0"L x 1.7"W x 2.4"D; mounting centers: 18.3"L x 1.3"W
- Weight: 2.8 lbs.
- One-year warranty

Part No.	1	10	25	50
134295	$59.95	$53.95	$48.95	$43.95

Relay Rack & Rack Panels



Rack:
- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base • Size: 84"H
- 1/8" aluminum side rails
- Size (at base): 19.8"W x 15.3"D x 84"H

19" Wide Panel:
- 10-gauge black aluminum
- Size: 1.75"H

Part No.	Description	Wt. (lbs.)	1	10
133751	Relay rack	21.8	$179.95	$161.95
133276	Rack panel	0.4	9.45	8.49

Rack Mount Card Cage

SALE

- For 19" rack mounts
- 24 slots
- Weight: 6.3 lbs.
- Fits card size: 6.5"L x 5.5"W
- Size: 6.5"L x 17.3"W x 6.1"D

Part No.	Description	1	10	25
172099	Rackmount card cage	$7.95	$6.95	$6.24

Black Velcro Cable Tie

SHAXON

- Has buckle and mounting hole

Part No.	Product No.	Length	1	10	50
149139	MD889BK	9"	$1.19	$1.09	$.99

ISA GPIB Interface Card

- On-board firmware ROM callable for user's application program
- Complete Listener/Talker/Controller (LTC) capability
- ISA Bus
- Data transfer rate over 300k bytes/sec.
- RF-shielded IEEE-488 receptable
- 6 interrupt levels
- Selection of 3 DMA channels using host DMA controller • Size: 5.0"L x 4.2"W

Part No.	Product No.	Description	1	10
136696	AX5488	GPIB card	$189.95	$169.95

ISA 48-Bit Digital I/O Card

- 48 TTL/DTL I/O lines; 8-bit ports
- Software programmable
- Interrupts: jumper-selectable to IRQ 2, 3, 4, 5, 6 or 7
- Buffer for high sinking capacity
- Added pull-up resistor: CMOS/DRY CONTACT compatible • ISA bus
- IBM PC/XT and higher compatible
- Size: 10.2"L x 3.9"W • One-year warranty

Part No.	Description	1	10
136784	48-bit dig. I/O card	$99.95	$89.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 185

What is An H8 Data Logger?

An H8 data logger is a small battery-operated electronic instrument that measures and records physical parameters over time such as temperature, humidity, light intensity over time any physical value represented by a DC voltage. They are equipped with a microprocessor, data storage, and sensor. Some models allow the use of external sensors.

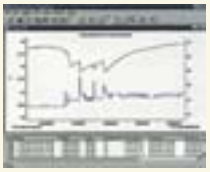
The data logger is connected to a personal computer (cable supplied) and the turn-key software is used to select logging parameters such as sampling intervals and sampling period. Start time is also programmed and determines when the logging is initiated. The data logger is then disconnected from the PC and deployed in the desired location.

Used mainly in remote areas or anywhere the convenience of battery power to record measurements is wanted, they are ideal for those involved with field studies, transportation monitoring, HVAC, troubleshooting, quality studies, general research, and educational science.

Examples of typical applications are: deployed in Alaskan glaciers in the hopes of finding answers to the global warming concerns; used by Cascade Designs, makers of Therma-Rest® sleeping bags, to determine thermal comfort ratings of their outdoor products; the state of Kansas used the data loggers for fuel savings evaluations in residential homes; helps to improve the performance of radio controlled race cars; and manage many aspects of a Laundromat business.

BoxCar Software for Windows®

For Hobo® Data Loggers



194167

Two Windows® applications for logger and data management: BoxCar 3.6 provides basic launch, data readout, plotting and data export capabilities. BoxCar Pro 4.0 is a powerful enhanced version of BoxCar 3.6, offering added features for graphing, data analysis, data export and simultaneous management of multiple loggers.

Easy Logger Set-up:
- Select from predefined sampling intervals (0.5 seconds to 9 hours) or program your own custom intervals
- Set start time and memory modes (stop when full, wrap-around when full)
- Check battery status
- Export data to Microsoft Excel, Lotus 1-2-3, or any ASCII compatible programs

BoxCar 3.7:
- Tool bar provides easy access to commonly used functions
- View data in tabular and graphical formats
- Display multiple plot windows at once

BoxCar PRO 4.0:
- Powerful graphing capabilities allows user to compare multiple parameters on one graph. Use the zoom and axis-control tools to focus in on the data of interest
- Analysis functions can be used to extract key information from logged data
- Other features include long file names, print preview, print graphs and series details, multiple logger launch

Part No.	Product No.	Description	1	10
194159	BC3.7-ON	BoxCar 3.7	**$13.95**	**$13.30**
194167	BCP4.0-ON	BoxCar PRO 4.0	**94.95**	**89.95**

onset computer corporation

H8 Data Loggers

Temperature/Relative Humidity/Light Intensity/External Input

194061

- Sensors included, except external input
- Requires BoxCar software (left)
- Capacity: 7943 measurements total except 194108/194116 are 32,520 measurements total
- User selectable sampling intervals 0.5 sec. to 9 hours, recording time to one year
- Nonvolatile EEPROM memory retains data even if battery fails
- Internal temperature sensor on 4" wire can extend from case
- Programmable start time/date • User replaceable battery lasts one year
- Operating ranges: -4˚F to +158˚F (temperature), 0 to 95% relative humidity (non-condensing, non-fogging), 2 to 6000 foot candles light intensity (lumens/ft²), 0 to 2.5VDC external input
- Size: 2.4"L x 1.9"W x 0.8"D; (except P/N 194116: 5.5"L x 5.4"W x 1.4"D)

Part No.	Product No.	Description	1	10
194052	H08-001-02	1 channel temperature	**$57.95**	**$54.95**
194061	H08-002-02	2 channel; temp./external input	**63.95**	**59.95**
194079	H08-003-02	2 channel; temp./relative humidity	**83.95**	**79.95**
194108	H08-006-04	Indoor 4 channel; external input	**94.95**	**85.45**
194095	H08-004-02	4 channel; temp./relative humidity/light intensity/external input	**93.95**	**89.95**
194087	H08-007-02	2 channel; temp./relative humidity/external input	**93.95**	**89.95**
194116	H08-008-04	Outdoor/industrial; 4 channel; external input	**178.95**	**159.95**

onset computer corporation

H8 PRO Series Data Loggers

Temperature/External Temperature/ Relative Humidity

194132

- Requires BoxCar software (left)
- Weatherproof (RH sensor requires protection from rain or direct splashing)
- High accuracy: ± 0.30F and ±3% RH
- Capacity: 65,291 standard resolution measurements or 32,645 high resolution measurements
- 0 – 100% RH range including condensing environments
- User-selectable resolution on temperature measurements (8 or 12 bit)
- Programmable start time/date
- User-selectable sampling intervals: 0.5 seconds to 9 hours, recording time to three years
- Nonvolatile EEPROM memory retains data even if battery fails • Size: 4.0"L x 3.2"W x 2.0"D

Includes: Sensors

Part No.	Product No.	Description	1	10
194124	H08-030-08	1 channel, temperature	**$127.95**	**$121.95**
194132	H08-031-08	2 channel, temp./external temp.	**167.95**	**159.95**
194141	H08-032-08	2 channel, temp./relative humidity	**157.95**	**149.95**

onset computer corporation

External Sensors & Cables

All cables and sensors can be plugged directly into the external input jacks of the HOBO® H8 Data Loggers (above).

194175

194239

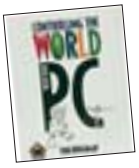
194247

Temperature sensors:
- Range: -40˚F to +212˚F in air (P/N 194212: +32˚F to +110˚F)
- Accuracy: ±0.9˚F @ 70˚F (P/N 194212: ±0.7˚F)
- Resolution: 0.7˚F @ 70˚F (P/N 194212: ±0.3˚F)
- Response time in still air: 4.5 min. typical (P/N 194212: 7.5 min. typical)

Cables: P/N 194239: range – 0 to 20.1mA; accuracy: ±0.1mA; ±1% of reading; resolution 0.4% of full scale

Part No.	Product No.	Description	1	10
194175	TMC1-HA	1' temp. sensor	**$22.95**	**$21.85**
194183	TMC6-HA	6' temp. sensor	**24.95**	**23.75**
194191	TMC20-HA	20' temp. sensor	**29.95**	**28.50**
194204	TMC50-HA	50' temp. sensor	**34.95**	**33.25**
194212	TMC6-HB	6' temp. sensor, high accuracy	**39.95**	**37.95**
194221	TMC6-HC	6' temp. sensor, stainless steel probe	**69.95**	**66.50**
194239	CABLE4-20mA	18" cable, 20mA 3.5" tinned leads	**12.95**	**12.35**
194247	CABLE2.5-Stereo	6' voltage input Stereo cable, 0.5" tinned leads	**5.95**	**5.70**

Controlling the World with Your PC



Hightext Publishing Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994)

Includes: 3.5" disk

Part No.	Description	Size (in.)	Wt. (lbs.)	1	10
116943	Parallel Port Complete w/ SW	7 x 10	1.4	**$34.95**	**$31.49**

Part Number Color Code
New Sale Refurbished Closeout

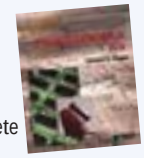
IC Cross Reference Book

Prompt Publications The most comprehensive replacement and substitution guide available for engineers, technicians, and anyone who works with ICs and modules. The IC Cross Reference book is from the makers of PHOTOFACT® service documentation. It includes more than 35,000 part and type number listings for the United States, Europe, and the Far East. (152 pages, 1998)

• Size: 8.5" x 10.8" • Weight: 0.9 lbs.

Part No.	Description	1	10
124679	IC Cross Reference Book ...	$29.95	$26.95

Exploring Programmable ICs Book



Prompt Publications Learn how to bypass this software constraint and operate ICs directly with hardware circuitry on your bench top. In this comprehensive book, you'll find in practical, well explained detail complete operating set-ups for a variety of programmable devices ranging from D-A converters to interval timers, universal asynchronous receiver / transmitters (UARTs), peripheral interface adapters (PIAs), and more. (344 pages, 2001)

• Size: 7.5" x 9.4" • Weight: 1.4 lbs.

Part No.	Description	1	10
185551	Programmable ICs	$34.95	$31.49

DSP Filters

Prompt Publishing Breaks down design complexity issues through the use of simplified tutorials and step-by-step instructions along with a collection of projects. The author presents the design formulas needed to build the digital equivalent of standard audio filters –low, high, band-pass, and band-stop. Includes the more specialized peaking and shelving filters. (344 pages, 2001)

• Size: 7.5" x 9.3" • Weight: 1.4 lbs.

Part No.	Description	1	10
190473	DSP Filters Book	$39.95	$35.95

Complete Book of Oscilloscopes

TAB Publishing Provides an in-depth reference source and practical applications guide. Learn how to read signals using different types of oscilloscopes. Also get detailed schematic diagrams of many types of oscilloscopes. 2nd edition. (305 pages, 1992)

• Size: 7.5" x 9.1" • Weight: 1.2 lbs.

Part No.	Description	1	10
147192	Complete Book of Oscillo.	$19.95	$17.95

Oscilloscope Guide Book

Prompt Publishing This book's full illustrations and diagrams bring oscilloscopes to life. Learn how to use them to conduct many tests and measurement techniques. This book answers questions about various types of oscilloscopes and how to obtain useful test results. (214 pages, 2001)

• Size:7.5" x 9.2" • Weight: 0.9 lbs.

Part No.	Description	1	5
185404	Oscilloscope Guide Book ..	$39.95	$35.95

Electronic Circuit Guidebooks

Prompt Publications

Volume 1: Sensors

In this book you will find information needed about typical sensors, along with a large amount of information about analog sensor circuitry. Amplifier circuits are well covered, along with differential amplifiers, analog signal processing and more. (339 pages, 1997)

• Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1	10
140732	Sensors	$29.95	$26.95

Volume 2: IC Timers

This book demonstrates the theory of how various timers work by way of introduction to resistor-capacitor circuits, in-depth chapters on TTL and CMOS digital timers, the LM-555, and other IC devices, op amp timer circuits, retriggerable and long duration timers. It goes further by presenting a variety of circuits and projects. (240 pages, 1997)

• Size: 7.3" x 9.3" • Weight: 1.0 lb.

Part No.	Description	1	10
146966	IC Timers	$29.95	$26.95

Op-Amp Design Book

Design, Applications and Troubleshooting

Butterworth-Heineman Publishing

This book explains the technical details of operational amplifier circuits in clear and understandable language without sacrificing technical depth. Topics are covered at three levels: operational overview, numerical analysis and design techniques. Troubleshooting techniques use fundamental electronic principles applied in a systematic approach. (488 pages, 1996)

• Size: 7.0" x 10.0" • Weight: 2.0 lbs.

Part No.	Description	1	10
134914	Op-Amp Design Book	$52.95	$48.95

Electric Motors and Control Techniques

TAB Publishing Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)

• Size: 7.3" x 9.2" • Weight: 1.1 lbs.

Part No.	Description	1	10
137162	Electric Motors & Control	$24.95	$22.49

Understanding Telephone Electronics Fourth Edition

Newnes Publishing Describes how conventional telephone systems operate and how digital electronics repla Provides an overview of state-of-the-art circuits, dialing, ringing, and central offic electronics. Provides an in-depth review and digital technique transmissions. (367 pages, 2001)

• Size: 7.4" x 9.3" • Weight: 1.4 lbs.

Part No.	Description	1	10
75504	Telephone Electronics	$26.95	$24.95

Robot Builder's Bonanza

TAB Publishing This fascinating guide offers you a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001)

• Size: 7.3" x 9.2" • Weight: 2.5 lbs.

Part No.	Description	1	10
137171	Robot Builder's Bonanza	$23.95	$21.45

Robots, Androids and Animatrons

SALE

McGraw-Hill Demonstrates how to put together the latest in robotics technology. Includes projects like robotic hands that perform a repetitive task, robotic insect with brain, robots with arcade applications, etc. (270 pages, 1998)

• Size: 7.5" x 9.0" • Weight: 1.3 lbs.

Part No.	Description	1	10
150498	Robots, Androids, Animatrons	$14.89	$13.38

Applied Robotics Book

Prompt Publishing Designed to give the beginner a thorough and complete introduction into the field of robotics with simple projects and easy-to-read explanations. Detailed and extensive schematics, programs, and descriptions guide you through challenges of building a working robot. (311 pages, 2001)

• Size: 7.4" x 9.2" • Weight: 1.3 lbs.

Includes: CD-ROM

Part No.	Description	1	10
185501	Applied Robotics Book	$29.95	$26.95

Power Supplies Project Book

Prompt Publications Guides you through the fundamentals of power supply design and construction. Includes basics of AC and DC, regulated and unregulated, linear and switching power supplies. (124 pages, 1997)

• Size: 6.0" x 9.0" • Weight: 0.4 lbs.

Part No.	Description	1	10
145453	Power Supplies Project.....	$19.95	$17.95

Ham Radio Operator's Guide

Second Edition

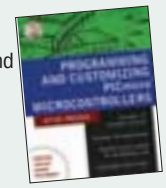
Prompt Publishing Written from the perspective of a new user, while keeping the experienced operator in mind. Includes sections on updated license requirements, sample test questions, and on-air operations. Covers equipment ranging from antennas to power supplies, education, safety, jargon and etiquette. (386 pages, 2001) • Size: 6.0" x 9.0" • Wt.: 1.2 lbs.

Part No.	Description	1	10
190465	Ham Radio Guide.....	$29.95	$26.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Programming & Customizing PIC Book



McGraw-Hill Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices. Includes tools for developing applications, sample operating systems, tips to make code development and debugging easier and PCB for programming (1190 pages, 2001)

• Size: 9.2" x 7.3" • Weight: 4.0 lbs.

Includes: CD-ROM and PIC PCB

Part No.	Description	1	10
183046	PIC Book (second edition)	**$49.95**	**$44.95**

PIC'n Techniques Book

Square 1 Publishing Describes the unique features of the 8-pin microcontrollers; the use of timers 1 and 2; capture/compare module; followed by timing, counting and pulse width modulation. (311 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 2.0 lbs.

Part No.	Description	1	10
161242	PIC'n Techniques	**$34.95**	**$31.49**

Serial PIC'n

Square 1 Publishing Introduces serial communications, including synchronous and asynchronous communications. Provides you with a set of serial communications functions and subprograms as well as how to communicate serially with the PICmicro family of microcontrollers. (530 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 3.3 lbs.

Part No.	Description	1	10
163871	Serial PIC'n	**$49.95**	**$44.95**

Easy PIC'n

Square 1 Publishing Learn all about the PIC16C54 & PIC16C84 and apply to the whole line of microcontrollers. This easy-to-use guide teaches assemblers, programming, interrupts, timing/counting and I/O conversion. (160 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 1.0 lb.

Part No.	Description	1	10
136645	Easy PIC'n	**$29.95**	**$26.95**

PIC'n up the Pace

Square 1 Publishing The next book from where Easy PIC'n left off. Includes topics on Op Amps, shift registers, liquid crystal display interface, digital to analog conversions, analog to digital conversions and decimal interface. (269 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 1.7 lbs.

Part No.	Description	1	10
145736	PIC'n up the Pace	**$34.95**	**$31.49**

PIC Microcontroller Project Book

McGraw-Hill This book provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need, programming your chip, making your chip count numerically, deliver messages on a LCD display, and so on. (203 pages, 2000)

• Size: 7.3" x 9.2" • Weight: 1.0 lb.

Part No.	Description	1	10
174650	PIC Microcontroller Book	**$29.95**	**$26.95**

IC Design Projects Book

Prompt Publishing Information of how a handful of versatile ICs work. Gives you information about TTL and CMOS ICs, and how power supplies, op amps and phase lock loops work. It also includes schematic diagrams, a step-by-step guide, parts list, and how to test projects such as battery chargers, 5-volt power supplies, DC motor controls and darkroom timers. (261 pages, 1998)

• Size: 7.4" x 9.3" • Weight: 1.0 lb.

Part No.	Description	1	10
153349	IC Design Projects Book	**$24.95**	**$22.49**

Programming and Customizing The BASIC Stamp and CD-ROM

McGraw-Hill A comprehensive tutorial on the easy-to-use BASIC Stamp single board computer and a primer on electronics. Includes software tools to begin developing PIC applications. (284 pages,1998)

• Size: 7.4" x 9.0" • Weight: 1.2 lbs.

Part No.	Description	1	10
154667	BASIC Stamp Book	**$32.95**	**$29.95**

BASIC Stamp Data Book

Newnes Publishing Covers both the hardware and software of the Parallax BASIC stamp I and II micro-processor operation and design. The basic stamp is built on PC micro-controller hardware and uses PBASIC as its programming language which makes it simple to use and modify for beginners and professionals. (305 pages, 2000)

• Size: 6.0" x 9.2" • Weight: 0.9 lbs.

Part No.	Description	1	10
143651	Basic Stamp Data Book	**$29.95**	**$26.95**

TTL Logic Data Book

Texas Instruments Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)

• Size: 6.0" x 8.5" • Weight: 2.6 lbs.

Part No.	Description	1	10
88225	TTL Logic Data Book	**$34.95**	**$31.49**

Handbook of Microcontrollers

McGraw-Hill Covers topics such as architecture, instruction set for the built-in processor, features and peripherals of the microcontroller and common methods of interfacing microcontrollers with peripheral devices. Supports devices such as PIC MI DS1820, DS1307, 8051, 80C310/320/520, 68HC05C8/ 705J1A/05P9A. (861 pages, 1999)

• Size: 7.5" x 9.0" • Weight: 3.9 lbs.

Includes: CD-ROM with application building tools, source code examples & manufacturer's data sheets

Part No.	Description	1	10
161832	Microcontroller Handbook	**$38.49**	**$35.49**

Programming and Customizing 8051 Microcontroller Book

McGraw-Hill Provides you with a complete understanding of the 8051 chip compatibles along with all the information needed to design and debug applications. Covers how to use these embedded chips to access and control many different devices. Includes over 30 experiments, 12 projects and CD-ROM featuring source code and PDF data sheets. (541 pages, 1999)

• Size: 7.5" x 9.2" • Weight: 2.5 lbs.

Part No.	Description	1	10
161402	Programming/Customizing	**$34.95**	**$31.49**

The Microcontroller Application Cookbook

Woodglen Press This cookbook is a collection of interface circuits. It is a reference to circuits and interface code that can be customized for more advanced users. (248 pages, 2000)

• Size: 5.3" x 8.6" • Weight: 0.7 lbs.

Part No.	Description	1	10
181681	Microcontroller Cookbook.	**$29.95**	**$26.95**

IC Projects Book

Prompt Publishing Written for hobbyists and technicians who are interested in projects for integrated circuits – projects that you will be able to breadboard quickly and test easily. (212 pages, 1997)

• Size: 6.0" x 9.0" • Weight: 0.7 lbs.

Part No.	Description	1	10
143271	IC Projects Book	**$24.95**	**$22.49**

CMOS Cookbook

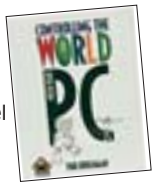
Newnes Publishing Everything you need to know to intelligently use CMOS circuits. User-oriented, stresses real-world applications, pays attention to detail, with a minimum of math and heavy theory. (512 pages, 1997)

• Size: 5.5" x 8.5" • Weight: 1.3 lbs.

Part No.	Description	1	10
39221	CMOS Cookbook	**$24.95**	**$22.49**

Part Number Color Code
New Sale Refurbished Closeout

Controlling the World with Your PC



Hightext Publishing Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994)

Includes: 3.5" disk

Part No.	Description	1	10
116943	Controlling the World	**$34.95**	**$31.49**

PC Hardware Projects Vol 2

Prompt Publications If you have always wanted to know more about using stepper motors or need a setup to drill your own PC boards quickly and accurately, for example, this is the book that will help you. (222 pages, 1997)

• Size: 7.8" x 9.3" • Weight: 1.0 lb.

Includes: Companion disk.

Part No.	Description	1	10
143280	PC Hardware Projects Vol 2	**$29.95**	**$26.95**

TV/VCR Combo Units Servicing Series

Prompt Publishing

Straightforward troubleshooting advice, theory of component solutions, and model-specific repair advice. (334 pages, 2001)

• Size: 8.5" x 11" • Weight: 1.8 lbs.

Part No.	Description	1	10
190481	TV/VCR Servicing Series ..	**$34.95**	**$31.95**

Electronic Pocket Reference

Third Edition

McGraw-Hill Publishing A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semiconductors, linear circuits, filters, power supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)

• Size: 4.0" x 6.0" • Weight: 0.9 lbs.

Part No.	Description	1	10
174481	Electronics Pocket Ref.	**$27.95**	**$25.49**

Practical Electronics Book for Inventors

McGraw-Hill Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares with other similar devices. Provides an easy-to-understand overview of basic components, resistors, diodes, capacitors, inductors, rectifiers, amplifiers, voltage regulators, discrete passive and active devices and so on. (604 pages, 2000)

• Size: 8.4" x 11" • Weight: 2.8 lbs.

Part No.	Description	1	10
174529	Practical Electronics	**$34.95**	**$31.45**

Parallel Port Complete

Lakeview Research A practical, hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

• Windows® 3.1 and Windows® 95 • PC to PC links
• Selecting cables • Size: 7.0" x 10.0" • Wt.: 1.4 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
138261	Parallel Port Complete w/ SW	**$39.95**	**$35.95**

Serial Port Complete

Lakeview Research RS-232 and RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998) • Size: 7" x 10" • Wt.: 1.3 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
154771	Serial Port Complete Book	**$39.95**	**$35.95**

Video Scrambling & Descrambling for Satellite & Cable TV

2nd Edition

This best selling book details the hows and whys of encoding and decoding video signals. Included is information on analog/digital conversion, phase-locked loops, digital techniques, and IC data sheets. (292 pages, 1998)

• Size: 8.5" x 11.0" • Weight: 1.3 lbs.

Part No.	Description	1	10
136442	Scram & Descrambling	**$32.95**	**$29.95**

Teach Yourself Electricity and Electronics Handbook

McGraw-Hill This book features conversational writing style, quizzes, self-tests and illustrations that make learning easier. You will be able to design basic electronic circuits, determine waveform combinations, calculate power and impedance and much more. (659 pages, 1997)

• Size: 7.5" x 9.3" • Weight: 3.0 lbs.

Part No.	Description	1	10
146982	Teach Yourself Electricity	**$34.95**	**$31.49**

How to Test Almost Everything Electronic

TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

• Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1	10
126199	How to Test Everything	**$17.95**	**$16.15**

CD-R/DVD Disk Recording Demystified

McGraw-Hill Includes topics such as creating and replicating discs inexpensively without errors; techniques for digitally recording music, video and multimedia; understanding CD-R and DVD; creating content quickly using tools and applications. (528 pages, 2000)

• Size: 7.2" x 9.4" • Weight: 2.2 lbs.

Includes: CD-ROM with trial software

SALE

Part No.	Description	1	10
175231	CD-R/DVD Disc Recording	**$37.25**	**$33.50**

Everything You Need To Develop Custom USB Peripherals Book

Lakeview (2nd Edition) This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

• Size: 7.0" x 9.0" • Weight: 1.9 lbs.

Part No.	Description	1	10
171900	Complete USB Book	**$49.95**	**$44.95**

Drive & Memory Troubleshooting Pocket Reference

McGraw-Hill Information about the newest memory technologies along with helpful tips and techniques for selecting, installing, optimizing and troubleshooting PC computer systems. Provides information such as maintaining peak hard drive performance, DVD-ROM drive installation and troubleshooting, overcoming PC card conflicts and problems. (541 pages, 2000)

• Size: 4.7" x 8.0" • Weight: 1.2 lbs.

SALE

Part No.	Description	1	10
173201	Troubleshooting book	**$9.25**	**$8.81**

Practical Electronics Handbook

Newnes Publishing Covers all the key data, facts, practical guidance and circuit design basics needed. This book provides a wealth of clear explanations and practical guidance, making the ideal text for students and practitioners of electronics who have progressed beyond the basics. (561 pages, 2000)

• Size: 6.1" x 9.2" • Weight: 1.9 lbs.

SALE

Part No.	Description	1	10
175409	Practical Electronics Book	**$29.95**	**$26.98**

Troubleshooting & Repairing Consumer Electronics Without a Schematic

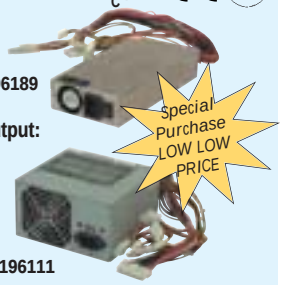
TAB Publishing Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

• Size: 7.4" x 9.3" • Weight: 1.1 lbs.

Part No.	Description	1	10
136080	Consumer Electronics	**$19.95**	**$17.95**

ATX 150/235-Watt

- **196189 150-watt output:**
  +3.3V @ 6A
  +5V @ 10A
  +12V @ 6A
  +5VSB @ 0.72A
  -5V @ 0.2A
  -12V @ 1A



196189

- **196111 235-watt output:**
  +3.3V @ 14A
  +5V @ 22A
  +12V @ 8A
  +5VSB @ 0.8A
  -5V @ 0.3A
  -12V @ 0.8A

196111

- 20-pin ATX form factor • Built-in fan

196189:
- Input voltage: 115/230VAC @ 60/50Hz (auto switching) • Size: 7.5"L x 4.0"W x 1.6"H
- Power on/off switch • Weight: 2.5 lbs.

Includes: detachable power cord

NEW

196111:
- Input voltage: 100/240VAC @ 60/50Hz (switchable)
- Mating input connector: suggest using P/N 38050 power cord, pg 57 – not included
- Size: 5.6"L x 5.9"W x 3.4"H • Weight: 3.2 lbs.

Part No.	Product No.	Description	1	10	25
196189	MPW-6150F	150W	$30.95	$27.95	$24.95
196111	FSP23560GT	235W ..	27.95	24.95	22.45

COMPAQ 73-Watt

- **Output:**
  +5VDC @ 10A
  +12VDC @ 1.5A
  -5VDC @ 0.3A
  -12VDC @ 0.3A

- Input voltage: 100/240VDC @ 50/60Hz (switchable)
- Input auto ranging • Recessed power switch
- Mating input connector: suggest using P/N 38050 power cord, pg 57 – not included
- Mating output connector: P/N 103392, pg 51; 2 P/N 78300 and 42075, pg 154
- Minimum load: all outputs at 10% of rated load
- Size: 6.6"L x 3.8"W x 2.9"H • Weight: 2.1 lbs.

Part No.	Product No.	Description	1	10	50
101813	141688003	73W	$17.95	$15.95	$13.95

AT 200-Watt

- **Output:**
  +5V @ 20A
  +12V @ 8A
  -5V @ 0.5A
  -12V @ 0.5A

- Input voltage: 115/230V @ 50/60Hz (switchable)
- AT compatible connectors • Built-in fan
- Size: 6.0"L x 4.6"W x 3.4"H • Weight: 2.6 lbs.

Includes: 6' power cord

Part No.	Product No.	Description	1	10	25
172822	AA-230	200W	$44.95	$38.95	$35.95

ASTEC AT 200-Watt

- **Output:**
  +5V @ 23A
  +12V @ 8.0A
  -5V @ 0.5A
  -12V @ 0.5A

- Fits popular mini-vertical & desktop cases, pg 134
- AT compatible connectors
- Input voltage: 110-220VAC @ 50-67Hz (switchable)
- Mating input connector: suggest using P/N 38050 power cord, pg 57 – not included • Built-in fan
- Size: 5.5"L x 5.9"W x 3.4"H • Mfr #: SA201-3450
- Weight: 3.2 lbs. • One-year warranty

Part No.	Product No.	Desc.	1	10	25
19529	JE1034	200W	$39.95	$35.95	$32.95

AT 250-Watt

- **Output:**
  +5V @ 20A
  +12V @ 10A
  -5V @ 0.5A
  -12V @ 0.5A

- Fits popular mini-vertical and desktop cases, pg 134
- Input voltage: 110-220VAC @ 50-67Hz (switchable)
- AT compatible connectors • One-year warranty
- Size: 5.5"L x 5.9"W x 3.4"H • Weight: 2.0 lbs.

Includes: 6' power cord

Part No.	Product No.	Description	1	10	25
174465	LC250C	250W	$49.95	$44.95	$39.95

ATX Compatible 250 and 300-Watt

- **152514 250-Watt Output:**
  +5V @ 25A
  +3.3V @ 16A
  +5VSB @ 1.5A
  +12V @ 10A
  -5V @ 0.5A
  -12V @ 0.5A

152514

- **155811 300-Watt Output:**
  +5V @ 25A **+3.3V @ 14A**
  +12V @ 12A **+5VSB @ 0.8A**
  -5V @ 0.5A **-12V @ 0.5A**
- Input voltage: 115/230V @ 50-60 (switchable)
- 20-pin ATX connector
- One-year warranty

152514: • Size: 5.5"L x 5.9"W x 3.4"H • Wt.: 3.3 lbs.
155811: • Size: 5.9"L x 5.5"W x 3.2"H • Wt.: 4.1 lbs.

Includes: 6' power cord

Part No.	Product No.	Description	1	10	25
152514	JE8250	250W ...	$49.95	$44.95	$39.95
155811	JE5300	300W	79.95	71.95	64.95

ATX 250 & 300-Watt with Power Switch

- **152194 250-Watt Output:**
  +5V @ 25A
  +3.3V @ 14A
  +12V @ 10A
  +5VSB @ 1.5A
  -5V @ 0.5A
  -12V @ 0.5A

152194

- **155539 300-Watt Output:**
  +5V @ 30A **+3.3V @ 14A**
  +12V @ 8A **+5VSB @ 1.5A**
  -5V @ 0.5A **-12V @ 0.5A**
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- 20-pin ATX connector • Power on/off switch
- Built-in fan • One-year warranty

152194: • Size: 6.0"L x 5.5"W x 3.4"H
• Compatible with P/N 140038, pg 134 • Wt.: 3.5 lbs.
155539: • Size: 5.9"L x 5.5"W x 3.4"H
• AMD Athlon approved • Weight: 3.7 lbs.

Includes: 6' power cord

Part No.	Product No.	Description	1	10	25
152194	JE2031	250W	$69.95	$62.95	$56.95
155539	JE2033	300W	79.95	70.95	64.95

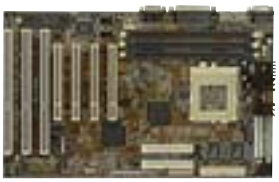
Check Out These Additional Enclosed PC Power Supplies

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector/Cord)	Output Connector (Mating Connector)	Certification	Size (L" x W" x H")	Wt. (lbs.)	Pricing 1	10	25
189704	Astec	SA1453490	145	+5/18, +12/6 -5/0.3, -12/0.8	100-240 @ 50/60	3-prong AC receptacle (P/N 38050, pg 57)	IBM AT	UL/CSA/VDE/CE	5.9 x 5.5 x 3.4	2.3	$39.95	$35.95	$32.95
177535	Trimag	BM5200	200	+5/19.8, +12/7.3 -5/0.3, -12/0.3	115/240 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	XT/AT	UL	8.7 x 5.6 x 4.7	5.5	39.95	34.95	29.95
174035	—	JE2130	200	+3.3/14, +5/20, +12/8 -5/0.5, -12/0.8	100/240 @ 50/60 switchable	3-prong AC receptacle (P/N 38050, pg 57)	IBM ATX	UL/CSA/TUV/CE	6.0 x 5.5 x 4.4	2.8	54.95	49.95	45.95
67467	—	JE1030A	200	+5/20, +12/8 -5/0.5, -12/0.5	110-220 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	PC/XT/AT	UL	9.5 x 5.5 x 4.6	4.5	64.95	59.95	54.95
190094	Delta	DPS200PB	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100-240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 57)	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.2	24.95	22.49	19.95
190107	Minnebea	AF00128	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100/240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 57)	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.3	3.4	29.95	26.95	—
190115	API	API-3186S	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100/240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 57)	STD AT	UL/CSA/TUV	5.5 x 5.9 x 3.7	3.5	24.95	22.49	19.95
190123	Golden Systems	GPC200-5000	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100-240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 57)	IBM AT	UL/CUL/TUV	5.5 x 5.9x 3.7	4.2	29.95	26.95	23.95
190131	Win	MCX-200PF	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60	3-prong AC receptacle (P/N 38050, pg 57)	IBM AT	UL/CSA	5.5 x 5.9 x 3.6	2.7	29.95	26.95	—
196437	Hipro	HP235NLXAK	235	+3.3/14, +5/25, +12/8, +5VSB/0.1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 57)	ATX	UL/CSA/TUV/CE	5.5 x 5.9 x 3.2	3.2	44.95	39.95	36.40
191505	Hipro	HP250NLXAA	250	+3.3/14, +5/27, +12/9, +5VSB/0.1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 57)	IBM ATX	—	5.5 x 5.9 x 3.5	3.1	49.95	44.95	39.95
132185	—	JE1035	300	+3.3/28, +5/30, +12/10 -5/1, -12/1	110/220 @ 50/60 switchable	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	4.7	109.95	99.95	89.95

Part Number Color Code
New Sale Refurbished Closeout

Pentium® Class Motherboard

Replacement ATX motherboard



185341

Part Number		185341
Processor		Socket 7
Speed		90-233 MHz
Chip set		430TX
BIOS		Award
Memory		EDO (168 pin)
Capacity		384MB
Slots		3
Speed		66 MHz
Slots		
PCI		4
AGP		None
ISA		3
Interfaces		
Hard Drive		4 EIDE
Floppy		2
USB		2
Parallel		1
Serial		2
IrDA		None
Sound		None
Keyboard		PS/2
Video		None
Size		12" x 7.4"
Weight		1.9 lbs
Price	1	**$24.95**
	10	**19.95**

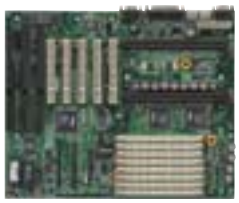
Socket 7: Intel Pentium® MMX, Cyrix 6x86 or AMD K5/K6

High-Performance Pentium® Class Motherboards

Dual processor design for data-intensive graphics and server operations

185682

185666



180241

Part Number		185682	185674	185666	180241
Processor		Socket 370	Dual Slot 1	Dual Slot 1	Dual Slot 1
Speed		466-1000 MHz	233-333 MHz	233-333 MHz	233-333 MHz
Chip set		i810M	440LX	440LX	440FX
BIOS		AMI	Award	Award	AMI
Memory		SDRAM (168 pin)	EDO (168 pin)	SDRAM (168 pin)	SIMM (72 pin)
Capacity		512MB	1,024MB	512MB	1,024MB
Slots		2	4	4	8
Speed		66/100 MHz	66 MHz	66 MHz	66 MHz
Slots					
PCI		3	5	5	5
AGP		None	1	1	None
ISA		None	2	2	3
Interfaces					
Hard Drive		4 ATA-66	2 IDE, SCSI	4 EIDE	4 EIDE
Floppy		2	2	2	2
USB		2	2	2	2
Parallel		1	1	1	1
Serial		2	2	2	2
IrDA		None	None	None	1
Sound		ES1373	None	None	None
Keyboard		PS/2	PS/2	PS/2	PS/2
Video		4MB	None	None	None
Size		9.6" x 7.5"	12" x 9.6"	12" x 9.6"	12" x 9.8"
Weight		1.5 lbs	3.0 lbs	3.0 lbs	2.9 lbs
Price	1	**$69.95**	**$69.95**	**$59.95**	**$59.95**
	10	**59.95**	**59.95**	**49.95**	**49.95**

Socket 370: Intel Celeron™ processor

Slot 1: Intel Pentium® II processor

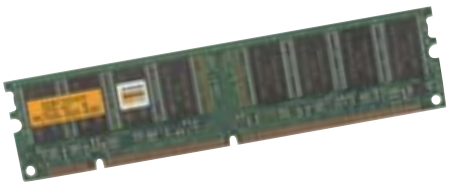
Add Power and Space

Expand the capacity of your system with our economical upright cases and hard drives.

See page 134 & 138 for details

Today's popular operating systems require a minimum of 128MB of memory. Additional memory can increase your system's efficiency.

See page 11 for details



Memory = Performance

16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/ VGA/FDC/HDC, game, & most I/O
- Control card installs inside your PC with four external slots
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318, pg 52 & P/N 78326, pg 154)
- One-year warranty
- Size: 9.5"L x 6.8"W x 1.0"H • Weight.: 5.5 lbs.

System requirements: IBM PC/XT and higher comp.

Part No.	Description	1	10
131238	PC slot extender unit	**$279.95**	**$251.95**

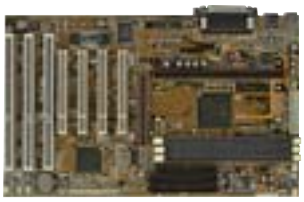
Pentium II Class Motherboards

ATX Motherboards are compatible with Intel Pentium® II processors.

188082

185383

185375



185367

Part No.		188082	185383	181761	188091	185375	185367	188074	185359
Processor		Slot 1*	Slot 1	Slot 1	Slot 1*	Slot 1	Slot 1	Slot 1*	Slot 1
Speed		233-333 MHz	233-333 MHz	233-333 MHz	233-333 MHz	233-333 MHz	233-333 MHz	233-266 MHz	233-333 MHz
Chip set		440LX	440LX	440LX	440LX	440LX	440LX	440LX	440EX
BIOS		Award	AMI	Award	Award	Award	Award	Award	Award
Memory		SIMM (72 pin)	SDRAM (168 pin)	SDRAM (168 pin)	EDO (168 pin)	EDO (168 pin)	EDO (168 pin)	EDO (72 pin)	SDRAM (168 pin)
Capacity		384MB	384MB	384MB	768MB	768MB	384MB	384MB	256MB
Slots		6	3	3	3	3	3	6	2
Speed		66 MHz	66 MHz	66 MHz	66 MHz	66 MHz	66 MHz	66 MHz	66 MHz
Slots									
PCI		5	5	4	4	4	4	5	2
AGP		None	1	1	1	1	1	1	1
ISA		3	2	2	3	2	3	3	2
Interfaces									
Hard Drive		4 EIDE	4 EIDE	4 EIDE	4 EIDE	4 EIDE	4 EIDE	4 EIDE	4 EIDE
Floppy		2	2	2	2	2	2	2	2
USB		2	2	2	2	2	2	2	2
Parallel		1	1	1	1	1	1	1	1
Serial		2	2	2	2	2	2	2	2
IrDA		None	1	1	None	1	None	1	None
Sound		CS4237B	None	None	None	None	None	None	ESS
Keyboard		PS/2	PS/2	PS/2	PS/2	PS/2	PS/2	PS/2	PS/2
Video		None	None	None	None	None	None	None	None
Size		12" x 9.6"	12" x 7.3"	12" x 7.1"	12" x 7.5"	9.9" x 8.6"	12" x 7.4"	12" x 9.6"	9" x 7.8"
Weight		2.6 lbs	3.1 lbs	2.3 lbs	2.5 lbs	2.5 lbs	2.5 lbs	2.6 lbs	1.9 lbs
Price	1	**$29.95**	**$39.95**	**$39.95**	**$39.95**	**$39.95**	**$39.95**	**$29.95**	**$39.95**
	10	**$24.95**	**$34.95**	**$34.95**	**$34.95**	**$34.95**	**$34.95**	**$24.95**	**$34.95**

* Also supports the Intel Celeron™ processor

ISA 16-Bit Super VGA Card

512KB on Board

- 1024 x 768 resolution in non-interlaced and interlaced modes
- Supports 16 colors; requires 1MB video RAM
- Supports VESA standard graphics and text modes
- Output HDDB15 female (analog)
- Emulates VGA, EGA, CGA, MDA & Hercules modes
- One-year warranty

Requirements: IBM AT and higher compatibles

Includes: 512kB video RAM, expandable to 1MB by adding one P/N 128688 chips, pg 11; software and manual

Part No.	Description	1	10	25
104660	VGA card	**$49.95**	**$44.95**	**$39.95**

VESA 24-Bit Graphics Accelerator Card

1MB on Board

Increases the speed of graphics and windowing programs by up to 15 times that of standard VGA.

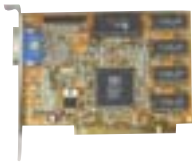
- Provides 24-bit true color at 640 x 480 pixels, 16M colors
- Connector: HDDB15 female
- On board memory: 1MB, expandable to 2MB using 256k x 16 DRAM P/N 128688, pg 11
- Non-interlaced/interlaced modes supported
- Weight: 0.7 lbs.
- One-year warranty

Requirements: Intel® 486 & higher compatibles

Part No.	Description	1	10
137285	Graphics accelerator	**$39.95**	**$35.95**

PCI 24-Bit SVGA Graphics Card

4MB on Board



- SIS 6326 AGP chipset
- Best support for DVD and MPEG-II playback
- 24-bit color @ 800 x 600 resolution
- Refresh rate: 60/75Hz
- HDDB15 female connector
- Size: 5.3"L x 3.5"W

Requirements: Windows® 3.x/95/98/NT4.0

Includes: Manual and CD-ROM drivers

Part No.	Description	1	10
167476	PCI accelerator card	**$39.95**	**$35.95**

ISA Dual-Port Game Card

- Enables two people to play a game at the same time
- Uses standard IBM type joysticks
- Two game ports
- One-year warranty

Requirements: IBM PC/XT and higher compatibles

Part No.	Description	1	10	25
105515	Game card	**$7.65**	**$6.84**	**$6.15**

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Part Number Color Code
New Sale Refurbished Closeout

FOREFRONT Troubleshooter Software

A self-booting program with its own operating system for accurate hardware component testing. Isolates hardware problems from operating system problems.

- Comprehensive tests of on-board and peripheral hardware
- PC/XT/AT and compatible computers
- 99+ hours burn-in and soak testing
- Printed test report record • Weight: 0.9 lbs.

Part No.	Description	1	10
126130	Troubleshooter software	$169.95	$153.34

Quicktech '98 Diagnostic Software

ULTRA-X

Self-booting software for 386, 486 and Pentium® II/MMX/III/AMD Athlon

- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA compliant video cards; keyboard; monitor; printer; and I/O ports
- 48 hour burn-in mode for lengthy testing
- Floppy drive head cleaning function

Includes: Loopback testers for DB9 and DB25 serial and DB25 parallel ports, manual and 3.5" disk

Part No.	Description	1	10
134826	QuickTech '98 software	$129.95	$116.95

FOREFRONT POSTPlus Solution

Solves problems caused by PC/File Server hardware failures. Three digit display provides solution codes. Works even if the PC system or other POST code readers will not.

- Size: 7.0"L x 1.5"W x 9.5"H (package)
- Weight: 1.0 lb. • One-year warranty

PCI, ISA & EISA

Includes: Card, probe and manual

Part No.	Description	1	10
141356	PostPlus diagnostic card	$329.95	$299.95

Diagnostic Card for PCI-Bus Systems

This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture.

ULTRA-X

- Plugs into any PCI I/O slot
- Digital indicators for every POST code error
- LEDs for monitoring power (DC): +12, -12, +5, +3
- LEDs for clock and reset failure
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more • One-year warranty

Part No.	Description	1	10
135108	PCI-POST diagnostic card	$199.95	$179.95

AT & ATX Vertical Computer Enclosures w/ Power Supply

- Slide-off side panel accesses roomy interior
- One internal 3.5" drive bay
- Back panel supports seven expansion slots
- Three exposed 5.25" and two exposed 3.5" drive bays
- 115V/230V switch
- Size: 8.6"W x 17.8"D x 17.3"H

SALE

138798

Includes: Power cord and 8Ω/0.5W speaker

Part No.	Description	Wt.(lbs.)	Price
138798	250W AT power supply	22.5	$69.95
140038	250W ATX power supply	32.1	79.95
153066	300W ATX power supply	32.1	99.95

AT Mini-Vertical Case

With 230-Watt Power Supply

- Fits baby AT motherboards
- Back panel with 7 expansion slots
- Power and hard disk LED indicators
- Power and reset switch
- Two exposed 3.5" and three exposed 5.25" drive bays
- 230 watt UL, CSA, FCC approved AT power supply
- Color: gray
- Size: 7.0"W x 17.2"D x 15.4"H
- Weight: 14.7 lbs.

Includes: Internal speaker, hardware and detachable power cord

Part No.	Product No.	Description	1	10
172769	HTMH201MT	AT mini-case	$49.95	$44.95

External CD-ROM Case

- SCSI-I interface
- SCSI-ID address selector
- RCA jack
- Streamlined appearance
- Metal body with plastic front panel
- 50-watt universal switching power supply
- Size: 6.5"W x 11.8"D x 2.0"H
- Weight: 3.8 lbs.
- Use cable (P/N 73162, pg 162) for connections

Part No.	Description	1	10
126391	SCSI CD-ROM external case	$49.95	$44.95

3.5" and 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females

Part No.	Drive	AWG	Length	1	10	100
28353	5.25"	18	5"	$2.75	$2.49	$1.95
72303	3.5"	22	5"	2.75	2.49	1.95

IDE Removable 5.25" Rack Kit for 3.5" Hard Drive w/Fan

- Supports DMA 66 hard drive
- Removable storage for 3.5" hard drives
- LED for power and hard drive activity
- Retaining lock mechanism
- 12VDC @ 50mA fan • CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H • Weight: 1.3 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
170608	Rack kit (IDE)	$29.95	$26.95	$23.95

Hot-Swappable IDE Removable Rack

This rack is removable through the keylock switch. There is no power contact until you lock the rack.

SALE

- Power LEDs
- Keylock for security
- Size: 8.8"L x 5.8"W x 1.7"H • Weight: 1.4 lbs.
- ***SCSI-I racks can be special ordered***

Part No.	Description	1	10
134068	IDE hot swappable rack	$41.59	$37.42

Removable HD Rack and Insert

- Removable storage for 3.5" IDE drive
- Power LEDs
- Keylock for security
- One-year warranty

196040: • Weight: 1.2 lbs.
- Size: 5.8"W x 8.5"D x 1.5"H

196031: • Weight: 0.8 lbs.
- Size: 4.1"W x 7.5"D x 1.6"H

196040

NEW

Includes: Inner cable with IDE connector

Part No.	Description	1	10	25
196040	Rack, IDE drives	$27.95	$24.95	$22.49
196031	Insert for 129816	19.95	17.95	13.95

SCSI-I External Subsystem Enclosures

For Multiple HDs, Network CD-Servers, RAIDs

- Zinc plated metal body w/ streamlined plastic front panel
- Internal SCSI cables with ID address selectors
- Switching power supply • UL/CSA/TUV approval
- High quality internal SCSI cables
- **SCSI-II & SCSI-III versions can be special ordered**
- One-year warranty
- Size: 7.1"W x 11.3"D x 6.5"H

129761: One 5.25" Full Height or 2-Half Height Bays
- Two SCSI-ID address selector • RCA jack
- Size: 7.0"W x 14.1"D x 10.3"H

129779: 5.25" 4-Half Height Bays

P/N 129761 shown with removable rack (not included – see below)

129779 129761

Part No.	Description	Power	Weight (lbs.)	1	10
129761	SCSI-I: 1full height or 2 half height bays	80W	8.3	$89.95	$80.95
129779	SCSI-I: 2 full height or 4 half height bays	200W	15.0	129.95	116.95

Computer Brackets

Fig.: 1 2 3 4 5 6 7

- For securing cards into bus slots
- Fits standard PC/XT/AT cases • Length: 4.75"
- See pg 155 for DB connectors
- * 1.0" top end to first tab (center hole) – 2.5" tab to tab (center hole)

Part No.	Description	Fig.	1	10	100
11754	Blank back panel	1	$1.49	$1.29	$1.09
139424*	Blank w/ board mt.	2	1.49	1.25	.75
101717	For DB9 connector	3	1.25	.99	.75
101733	For DB25 connector	4	1.25	.99	.75
101741	For DC37 connector	5	1.25	.85	.60
101830	For DB9 & DB25 conn.	6	1.79	1.59	1.44
101709	For DA15 & DB25 conn.	7	1.25	.99	.75

6" PC Power Supply Extension Cable Set

- Two 6", 6-conductor cables
- Use with standard IBM compatible power supplies and motherboards
- Wiring: 18 AWG, 300V rating

Part No.	Description	1	10	100
130809	Extension cable set	$4.49	$3.99	$3.79

ATX Power Supply 15" Extension Cable

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply code
- 15"L x 18AWG (wires)

Part No.	Product No.	1	10	100
170237	ATX-400-RV	$5.95	$5.35	$4.75

3.5" Drive Mounting Kits

181227 32088

- For mounting a 3.5" floppy drive into a 5.25" slot
- Compatible with Teac drive (P/N 115490, above)

Includes: Beige faceplate

Part No.	Description	1	10	50
32088	Drive mounting kit	$6.95	$5.95	$4.95
181227	Mounting bracket	2.49	2.25	1.95

Drive Mounting Rails

SALE

- AT and compatibles • 8 mounting holes

Includes: All necessary mounting hardware

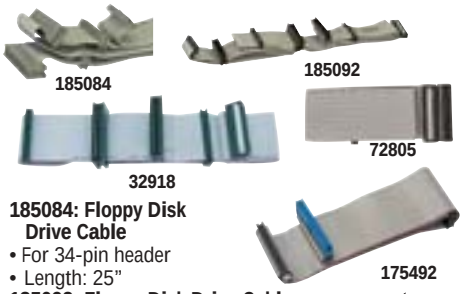
Part No.	Description	1	10	100
34323	Mounting rails (2)	$.55	$.46	$.41

Toll-Free Technical Support
Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

SCSI Type / Connector Reference Table

SCSI type	50-pin Centronics DB25	50-pin Header	Half pitch DB50	Half pitch DB68	VHD68 Centronics	VHD80 Centronics
SCSI-I	✔	✔	✔			
SCSI-II			✔	✔		
SCSI-II wide					✔	
SCSI-III					✔	✔
RAID: SCA, SCA-2						✔

Disk Drive Cables



185084 185092 32918 72805 175492

185084: Floppy Disk Drive Cable
- For 34-pin header
- Length: 25"

185092: Floppy Disk Drive Cable
- For 34-pin header • Length: 48"

32918: Floppy Disk Drive Cable
- IBM PC/XT and higher compatible
- Connects floppy drives to controller card
- Length: 23"

175492: IDE Hard Drive Cable for Ultra DMA 66
- Length: 17"

Includes: Two 40-pin sockets

72805: IDE Hard Drive Cable • Length: 18"

Includes: Two socket 40-pin headers for two IDE devices

18665: MFM/RLL Hard Drive Cable – 20 pin
- For PC/XT/AT & compatibles • Length: 2'

179987: Hard Drive Cable Kit
- 1 piece 20" IDE cable (P/N 72805) and 1 piece 25" floppy cable (P/N 32918)

SALE

Part No.	Description	1	10	100
185084	For use w/ 3.5" & 5.25"	$3.95	$2.49	$1.99
185092	For use w/ 3.5" & 5.25"	2.55	2.26	2.03
32918	For use w/ one or two 3.5" and 5.25" drives	2.95	2.49	1.75
72805	IDE cable	2.95	2.49	1.75
18665	20-pin data cable	1.35	1.21	1.09
179987	IDE/HD/FD cable kit	2.95	2.49	1.75
175492	IDE cable Ultra DMA	6.95	6.25	4.95

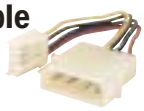
Internal Computer Cable Pack

SALE

- Standard computer back panel brackets
- Bracket with DB9 male to 10-pin header, DB25 male to 10-pin header; DB25 female to 26-pin header; 20" IDE cable for two hard drives; 20" floppy drive cable

Part No.	Description	1	10	25
180005	Internal cable pack	$3.99	$3.55	$3.19

3.5" Disk Drive Power Adapter Cable



- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies

Part No.	Length	AWG	1	10	100
28396	3.5"	22	$2.49	$2.25	$1.75

Panel Bracket Cable Assemblies

149614 149622

- Standard computer back panel brackets • Length: 12"
- Ribbon cable w/ header conn.

149614/180179: 2 serial ports
149622: 1 parallel port
179995: 2 serial ports and 1 parallel

Part No.	Description	1	10	25
149614	DB9M to 10-pin header DB25M to 10-pin header	$4.95	$4.49	$2.95
180179	DB9M to 10-pin header DB25M to 10-pin header	1.29	1.15	1.03
149622	DB25 to 26-pin header	4.95	4.49	2.95
179995	DB9M to 10-pin header DB25M to 10-pin header DB25F to 26-pin header	2.49	2.22	1.99

CD-ROM Audio Cables

Connects your CD-ROM directly to your sound card making installation quick and easy, Blaster compatible!

127546

- 2 x 28 AWG

127546: Sony/MPC2
- Compatible with most CD-ROMs

168612: Universal
- For use with Creative Labs, Sony or generic sound cards
- 3 connectors on each end of wire: 4-position (.100") housing connector; 4-position (.100") Molex-type keyed connector; 3-position (.100") Molex-type keyed connector

168612

Part No.	Connection from Sound Blaster to	Length	1	10	50
127546	Sony/MPC2	25"	$2.95	$2.49	$1.95
168612	Universal	18"	3.95	3.49	2.95

CD Accessories

SALE

172179 76591 148179

172179: Single CD case
76591: For caddy-mount CD-ROM drives
148179: Holds 24 CDs in clear sleeves

Part No.	Description	Wt. (lbs.)	1	10	50
172179	Single jewel case	0.3	$.29	$.24	$.19
76591	Caddy	0.2	4.59	4.08	3.67
148179	Carrying case	0.7	6.95	6.25	5.49

Computer Cleaning Kit

SALE

- 3.5" head cleaning diskette, 1 bottle head cleaning fluid, CD-ROM drive laser lens cleaner, 1 bottle computer/CD cleaning solution
- 20 anti-static wipes, 5 anti-static cleaning pads, 5 reusable swabs and 1 CD cleaning cloth
- Vacuum with accessories, tweezers and zipper case
- Size: 11.5"L x 6.2"W x 1.9"H • Weight: 1.2 lbs.

Part No.	Description	1	10
134527	Multimedia cleaning kit	$12.95	$11.72

Part Number Color Code
New Sale Refurbished Closeout

84-Key AT Mini Keyboard

- Tactile feed back • 84-key layout
- AT/386/486 and compatibles
- Size: 12.8"L x 6.6"W x 1.0"H
- Weight: 2.4 lbs. • One-year warranty

Part No.	Description	1	10	25
114868	84-key AT keyboard	$51.95	$45.95	$39.95

COMPAQ 101-Key Keyboard

- For PS/2 systems • Tactile touch
- LED indicators for Num, Caps, and Scroll lock
- 12 function keys with separate cursor and numeric keys
- Recommend using adapter P/Ns 85500, pg 162 or 159089, pg 164
- Size: 18.3"L x 6.5"W x 1.3"H • Weight: 3.6 lbs.

Part No.	Description	1	10	25
191530	101-Key Keyboard	$19.95	$15.29	$12.75

Sun Win 95 104-Key Keyboard

- For PS/2 systems
- Unmarked window keys
- LED indicators for Num, Caps and Scroll Locks
- 12 Function keys w/ separate arrow & numeric keys
- Tactile feedback • Tilt mechanism
- Size: 18.2"L x 7.0"W x 1.5"H • Weight: 2.7 lbs.

Part No.	Description	1	10	25
173649	104 keyboard	$12.95	$9.19	$7.95

Win 95 104-Key Keyboard

- IBM PS/2 and higher compatibles
- LED indicator for Num, Caps and Scroll Locks
- Tilt mechanism • Ergonomic style
- 12 function keys • Tactile key
- Use adapter P/N 85500, pg 162 for AT systems
- Size: 18.5"L x 7.0"W x 1.0"H • Weight: 2.7 lbs.

Part No.	Description	1	10	25
135482	104-key keyboard	$10.95	$9.95	$8.95

QTRONIX Win 98 107-Key USB Keyboard with PS/2 Port

- IBM PC with USB-A port or higher compatible
- Windows® 95/98 compatible
- ACPI keys (wake-up, sleep, and power) for Windows® 98 • Adjustable tilt mechanism
- Detachable ergonomic wrist wrest
- Tactile key stroke – high quality rubber mechanical switches • 20,000,000 life cycles per switch
- PS/2 mouse port at back of keyboard
- Size: 18.7"L x 6.7"W x 1.0"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
189317	Scorpius 980+	$29.95	$26.95	$23.95

QTRONIX Win 95/98 107-Key PS/2 Red or Blue Keyboards

NEW

195813

- Tactile key stroke with high quality rubber mechanical switch • Adjustable tilt mechanism
- 20,000,000 life cycles per switch
- IBM PS/2 and higher compatible
- Designed for Windows® 98 with ACPI keys (wake, sleep, and power) • Windows® 95 compatible
- Opaque red or blue top cover & clear bottom cover
- Use adapter P/N 85500, pg 162 for AT systems
- Size: 18.6"L x 6.5"W x 1.1"H • Weight: 2.0 lbs.

Part No.	Product No.	1	10
195821	Scorpius 98A Red	$12.95	$11.95
195813	Scorpius 98A Blue	12.95	11.95

107-Key Ergonomic Keyboard for Windows® 95

- IBM PC/ AT and higher compatibles
- For PS/2 requires adapter P/N 159097, pg 164
- Built-in wrist rest
- Membrane switch with tactile feedback
- 10 million life cycles per switch
- Size: 19.0"L x 9.5"W x 1.4"H • Weight: 2.9 lbs.

Part No.	Description	1	10
163774	Win 95 ergonomic KB	$24.95	$21.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

QTRONIX Win 95 104-Key Keyboard w/ Jumbo Trackball

- PC/AT and PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-over for quick typists
- Tactile click sound and feel • Weight: 3.7 lbs.
- Size: 19.0"L x 6.8"W x 1.4"H • One-year warranty

Includes: Software and AT cable adapter

Part No.	Description	1	10	25
128717	Scorpius 35PM/NET	$99.95	$89.95	$80.95

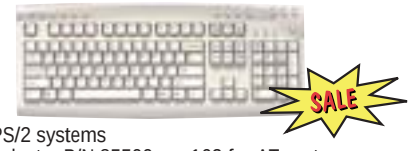
hp 117-Key Multimedia Keyboard for Windows®

- LED indicators for Num, Caps and Scroll Locks
- Mail key button, HP top tools button, internet button, menu button, lock button, HP customer information button, mute and volume buttons, and 4 shortcut buttons • For PS/2 systems
- Use adapter P/N 85500, pg 162 for AT systems
- 12 function keys w/ separate cursor & numeric keys
- Headset and microphone ports
- Adjustable tilt mechanism
- Size: 18.9"L x 7.0"W x 1.6"H • Weight: 4.3 lbs.

Includes: 3.5" drivers

Part No.	Description	1	10	25
176874	Multimedia KB	$17.95	$16.13	$14.55

117-Key Multimedia Keyboard



- For PS/2 systems
- Use adapter P/N 85500, pg 162 for AT systems
- LED indicators for Num, Caps, and Scroll locks
- ± volume buttons, mute button, forward / reverse/play/stop button for multimedia, WWW button, MS DOS button, My Doc button, Menu/? button, screen saver button, close button
- 12 function keys w/ separate cursor & numeric keys
- Size: 18.5"L x 7.0"W x 1.8"H • Weight: 3.6 lbs.

Includes: 3.5" drivers and keyboard labels for buttons

Part No.	Description	1	10	25
174334	Multimedia KB	$9.85	$8.85	$7.95

QTRONIX 108-Key Compact Keyboard

- IBM PC PS/2 or higher compatible
- Use adapter P/N 85500, pg 162 for AT systems
- LED indicator for Num, Caps, and Scroll Lock
- Supports Windows® 98 ACPI keys (wake-up, sleep, power) • 12 function keys
- High quality rubber mechanical key switches
- Size: 15.5"L x 6.5"W x 1.1"H • Weight: 1.9 lbs.

Part No.	Description	1	10	25
180347	Scorpius 2KP	$39.95	$35.95	$32.49

Basic PS/2 2-Button Mouse

- Compatible with all major application software
- PS/2 connector (6-pin mini DIN)
- Size: 4.4"L x 2.5"W x 1.4"H

SALE

System requirements: IBM PC/XT/AT/PS/2 or compatible systems; Windows® 3.1/95

Includes: 3.5" drivers

Part No.	Description	1	10	100
174326	PS/2 mouse	$7.95	$6.95	$6.50

Fast-Tracking PS/2 2-Button Mouse

- Opto-mechanical encoder
- Compatible with all major application software
- Dynamic resolution and fast tracking speed
- PS/2 connector (6-pin mini DIN)
- Compatible w/ IBM PC/XT/AT 386/486
- Size: 4.2"L x 2.3"W x 1.2"H

Includes: Set up diskette

Part No.	Description	1	10	25
159513	PS/2 mouse	$9.95	$8.95	$7.95

DigiSys PS/2 3-Button Mouse

- Compatible with IBM PC/XT/AT systems
- Compatible with major applications
- Male PS/2 connector (6-pin mini DIN)
- Size: 4.2"L x 1.2"H x 2.5"W

System requirements: Windows® 95/98/2000/NT

Part No.	Description	1	10	25
166748	PS/2 3-button mouse	$8.95	$7.95	$7.25

3-Button Serial Mouse

- Microsoft® mouse compatible
- IBM PC/XT & higher compatibles
- Size: 4.3"L x 2.3"W x 1.2"H

SALE

Part No.	Description	1	10	50
104441	Serial mouse	$4.49	$3.95	$3.25

QTRONIX® PS/2 2-Button Mouse

- Male PS/2 connector (6-pin mini DIN)
- Compatible w/ Windows® 95/98
- Wheel for scrolling
- High performance application bundled and easy to setup
- Ergonomic design
- Versatile control panel for productivity
- Size: 4.5"L x 2.5"W x 1.5"H

Includes: Installation sheet and 3.5" disk drivers

Part No.	Description	1	10	25
170317	Lynx 3D Net	$9.95	$8.95	$7.95

USB 3-Button Mouse

USB-A Connector

- Ergonomic design for comfortable feel
- Color: gray
- One year warranty
- Size: 4.4"L x 2.4"W x 1.0"H

SALE

Part No.	Description	1	10
155686	USB-A ergonomic mouse	$6.75	$6.09

QTRONIX® Trackball with Menu Software

- Over 24 software menus to ease use
- Variable resolution (20-6400 dpi)
- Convenient button lock for dragging & drawing
- Ergonomic design
- 3.5" disk • One-year warranty
- Size: 5.5"L x 4.6"W x 2.0"H
- Weight: 1.2 lbs.

System requirements: IBM PC/XT or compatible systems; MS DOS 3.3 or later, Windows® 95

Part No.	Description	1	10	25
128995	LIBRA 90 MP PRO	$29.95	$26.95	$23.95

USB Trackball

Apple® MAC & IBM PC Compatible

NEW

- Designed to work with Apple Mac (OS 8.1 or above) and IBM PC (Windows® 98, 2000 or better)
- Large buttons and ergonomic shape
- Removable retaining ring for easy ball removal and roller cleaning
- USB-A male connector
- Tactile micro switches for highly reliable tactile sound and feeling • Detachable wrist rest
- 1,000,000 life cycles per switch
- Color: Clear opaque top with blue opaque bottom
- Size: 5.7"L x 4.7"W x 1.8"H
- Weight: 1.0 lb.

Part No.	Description	1	10	25
196091	Libra 90i trackball	$19.95	$17.95	$15.95

Trackman Marble FX™

SALE

- Ergonomically designed with large ball for easy precise control
- Marble sensing technology for smooth motion
- Drivers for one-click scrolling & zooming in Office 97
- Male PS/2 connector (6-pin mini DIN)
- Size: 7.2"L x 3.0"W x 3.0"H
- Weight: 1.5 lbs.

Logitech

System requirements: IBM or compatible systems; Windows® 95 and higher; available serial or PS/2 port

Includes: 3.5" disk drivers, PS/2 to serial adapter and manual

Part No.	Description	1	10
189827	Trackman marble FX	$49.95	$35.95

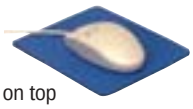
Desktop Keyboard Drawer

Elevates your CPU or monitor by 4". Keyboard drawer frees up desktop space by keeping keyboard out of the way.

- External size: 22.0"L x 15.5"W x 4.0"H • Weight: 8.5 lbs.

Part No.	Description	1	10	25
20239	CPU stand w/ drawer	$24.95	$23.95	$21.95

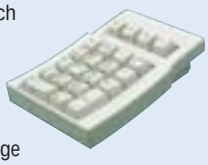
Mini Mouse Pad



- Tough non-skid neoprene backing
- Smooth-gliding cloth surface on top
- Size: 7.0"L x 5.5"W

Part No.	Description	1	10	100
121363	Mini mouse pad	$2.95	$2.65	$2.39

QTRONIX® 22-Key Serial Keypad



- Tactile click-sound and touch
- Auto repeat function
- 9600 bps, data bits: 8, stop bits: 1, start bit: none, no parity
- Serial DB9 connector
- 2-key rollover • Color: beige
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs • One-year warranty

System requirements: IBM PC/XT or higher compatibles; and MS DOS 3.X

Includes: 3.5" driver diskette and manual

Part No.	Description	1	10	25
129357	Scorpius 22RW	$39.95	$35.95	$32.49

QTRONIX® 17-Key PS/2 Keypad

A compact keypad designed for use with IBM compatible laptops and desktop PC.

- Auto-repeat function
- Tactile click-sound and touch
- Switch life of 20 million cycles
- For IBM PS/2 and compatibles
- Installs into 6-pin mini DIN keyboard connector (no software required)
- Two key roll over • Size: 5.6"L x 3.4"W x 0.9"D
- One-year warranty

Part No.	Description	1	10	25
151811	Scorpius 20PB	$34.95	$31.49	$27.95

QTRONIX® 17-Key USB Keypad

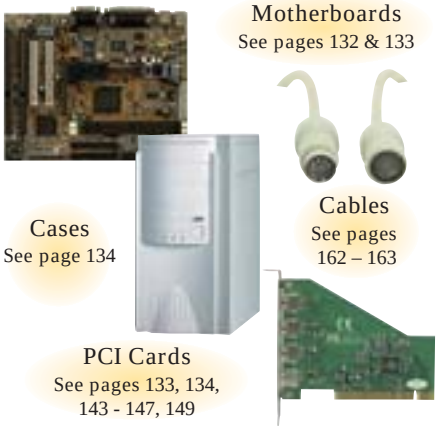
SALE

- Reliable rubber mechanical switches
- USB-A connector
- 17 overall keys with full numeric functions
- Adjustable tile mechanism
- Auto repeat function
- No external power supply needed • Tactile keystroke
- 20,000,000 life cycles per switch
- Size: 3.5"W x 0.9"D x 5.5"H

System requirements: IBM compatible PC, Windows® 98/2000/XP, USB-A port

Part No.	Description	1	10	100
171141	USB keypad	$32.99	$29.29	$26.75

Be sure to Check Out These PC Products!



Motherboards
See pages 132 & 133

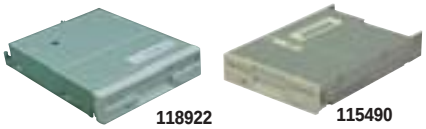
Cases
See page 134

Cables
See pages 162 – 163

PCI Cards
See pages 133, 134, 143 - 147, 149

Part Number Color Code
New Sale Refurbished Closeout

1.44MB 3.5" Internal Floppy Disk Drives


118922 115490

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density
- Weight: 1.4 lbs.
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)

Part No.	Product No.	Mfr.	Color	1	10
118922	MPF520-1	Sony	Beige	$21.95	$19.79
115490	FD235	Teac	Beige	17.95	16.29
189000	FD235HF	Teac	Black	17.95	16.29
189173	DF354HO11A	Alps	White	17.95	16.29
189165	—	Varies	Beige	24.95	17.95
189350	—	Varies	Black	14.95	13.45

Matsushita 120MB Floppy Drive

- 120MB capacity per disk (240MB w/ compression)
- Average seek time: 70ms typical
- Transfer rate: 750 – 1360 kB/sec from disk
- Full read and write compatibility with standard floppy disks (1.44MB and 720kB)
- Fits standard 3.5" drive bay
- IDE interface
- Plug & Play with Windows® 98 or higher
- Size: 6.1"L x 4.0"W x 0.9"H
- Weight: 2.0 lbs.

Includes: Manual

Part No	Description	1	10
174019	120MB floppy drive	$119.95	$109.95

SONY® Triple Density 3.5" Internal Floppy Disk Drive

Without Bezel

- Supports 1MB, 1.6MB and 2MB unformatted capacities
- Weight: 0.8 lbs.
- Size: 4.0"W x 5.9"D x 1.0"H

Part No.	Product No.	Manufacturer	1	10
176284	MPF520-7	Sony	$11.95	$10.70

iomega 100MB IDE ZIP Drive

- 100MB capacity per disk
- Average seek time: 29ms
- Transfer rate: 1.4MB/sec.
- IDE interface
- Buffer size: 16k
- Fits in standard 3.5" drive bay
- OS: DOS 6.xx, WIN 3X/9X/NTXX
- Weight: 0.9 lbs.
- One-year warranty

Includes: ZIP disk and ZIP drivers (CD-ROM)

Part No.	Description	1	10
149593	ZIP drive (disk and drivers)	$69.95	$62.96

iomega External Zip Drive NiMH Battery Pack

- Powers your external zip drive for up to 3 hours
- Convenient built-in charging; plugs directly to wall outlet (2-prong plug)
- See page 59 for complete specifications

Part No.	Description	1	10
190166	External battery pack	$34.95	$31.49

IDE and SCSI Hard Drives and Mounting Kits

PC/XT/AT and Compatibles

Check out our external mass storage cabinets on page 134!

- IDE drives over 528MB require EIDE controller or higher
- Manufacturers may vary and capacity may exceed specification; we carry Seagate, Western Digital, IBM and others.
- All are 1" in height, except as noted

124978

180857 117217

Part No.	Capacity	Description	Weight (lbs.)	Speed (ms)	Warranty	1	10
137306	528MB	2.5" IDE for portable (.75")	0.5	14	3 mos.	$79.95	$71.95
113751	210MB	3.5" IDE	1.6	14	3 mos.	59.95	53.95
115764	425MB	3.5" IDE	1.7	12.5	3 mos.	69.95	62.95
118949	850MB	3.5" IDE	1.7	14	1 year	74.95	67.45
124978	1.27GB	3.5" IDE	1.1	14	1 year	79.95	71.95
146325	1.7GB	3.5" IDE (Fast ATA-2)	1.1	12	1 year	89.95	79.95
146333	2.5GB	3.5" EIDE (Fast ATA-2)	1.0	11	1 year	99.95	89.95
151036	3.2GB	3.5" EIDE (Ultra DMA33)	1.1	11	1 year	114.95	105.95
151044	4.3GB	3.5" EIDE (Ultra DMA33)	1.1	11.5	1 year	119.95	109.95
151052	6.4GB	3.5" EIDE (Ultra DMA33)	1.1	9.5	1 year	129.95	116.95
162261	8.45GB	3.5" EIDE (Ultra DMA33)	1.2	9.5	1 year	129.95	116.95
189093	2.0GB	SCSI (1.5")	1.2	10.1	3 mos.	29.95	26.95
189894	2.0GB	SCSI (wide, ultra)	1.1	8.0	3 mos.	69.95	62.95
199494	2.0GB	SCSI (wide, ultra) (1.5")	1.2	8.0	3 mos.	29.95	26.95
190019	2.0GB	SCSI (wide, ultra, SCA)	1.1	7.2	3 mos.	29.95	26.96
189114	4.0GB	SCSI	2.5	9.5	3 mos.	69.95	62.95
197587	4.0GB	SCSI (.75")	1.3	7.5	3 mos.	89.95	79.95
197579	4.0GB	SCSI (wide, ultra) (1.5")	1.3	8.0	3 mos.	79.95	71.95
189122	4.0GB	SCSI (wide, ultra)	1.3	9.0	3 mos.	79.95	71.95
188907	4.0GB	SCSI (wide, ultra, SCA)	1.2	8.1	3 mos.	99.95	89.95
189131	9.1GB	SCSI (wide, ultra)	1.5	6.1	3 mos.	219.95	197.95
189914	9.1GB	SCSI (wide, ultra, SCA)	1.4	5.0	3 mos.	229.95	206.95

Part No.	Product No.	Description	Weight (lbs.)	1	10	25
180857	HDB35	3.5" hard drive mount kit (short)	0.2	$4.95	$4.49	$3.95
117217	HDMK	3.5" kit (w/ black & gray faceplates)	0.6	7.95	7.25	6.49

IBM® 360kB 5.25" Internal Floppy Disk Drive

- IBM PC/XT and higher compatibles
- Double-sided
- With faceplate
- Weight: 3.9 lbs.
- Size: 5.8"W x 8.1"D x 1.6"H

Part No.	Product No.	Manufacturer	1	10
126957	YD-580	IBM (360KB)	$29.95	$26.95

3.5" Portable External Parallel Port Hard Drive Enclosure

- Allows hard drive to be set up to a parallel port
- Use with IDE drives
- Compatible with DOS and Windows®
- Enters power save mode after 20 minutes idle time
- Size: 8.8"L x 5.3"W x 1.5"H
- Weight: 4.5 lbs.

Includes: 120VAC external power adapter, cable, manual and carrying case

Part No.	Description	1	10
129699	3.5" external HD enclosure	$99.99	$89.99

Internal CD-ROM Drives

181745

- 5.25" half-height design
- One-year warranty
- Manufacturer varies

Includes: Software and audio cable

† Slot type

* Black faceplate; doesn't include software & cable

IDE Drives

Part No.	Speed	Buffer	kB/sec.	Wt. (lbs.)	1	10
181745	24X†	128kB	3600	2.3	$34.95	$31.49
149307	24X	256kB	3600	2.6	44.95	39.95
189051	32X	128kB	4800	2.6	34.95	31.49
189069	40X	128kB	6000	2.6	39.95	28.95
189819	40X*	128kB	6000	2.6	39.95	35.95
162042	44X	128kB	6600	2.5	59.95	49.95
189077	48X	128kB	7200	2.6	49.95	44.95
189448	56X	128kB	8400	2.3	59.95	53.95

SCSI Drive

Part No.	Speed	Buffer	kB/sec.	Wt. (lbs.)	1	10
189018	12X	128kB	600	2.6	$49.95	$44.95

Internal CD-Writer

NEW

198782

Floppies and ZIP disks don't have enough space for large audio and video files. Now create music or photo album CDs and back-up with this internal CD-writer that writes up to 650MB on a single CD! Carry all your data with you and use it anywhere.

- 16x high speed for CD-R media, 10X rewrite speed for CD-RW, and 40X for fast reading of data
- Works with many CD formats
- Standard E-IDE/ATAPI interface

Includes: bundled software for archiving and CD creation.

Part No.	Description	Wt. (lbs.)	1	5
198782	CD-Writer	1.3	$109.99	$104.99
198774	50-pack 24X CD-R (80min 700MB)	2.0	14.99	—

Dual Fan Cooler w/ Back Light

- Fits 5.25" bay
- 5.3 CFM (per fan)
- Requires 12VDC for fans (5.25" drive connectors)
- Audible overheat alarm
- Backlight color: green
- Controls two sensors
- One-year warranty
- Weight: 0.5 lbs.
- Digital display: 1.86"W x 1.0"H
- Size: 6.0"W x 2.4"D x 1.7"H
- **P/N 148769:** sensor for CPU monitoring

SALE

148742

148769

Includes: CR2032 3V battery

Part No.	Description	1	10	25
148742	Dual fan cooler	$31.89	$28.67	$25.80
148769	Sensor (flat type) CPU	3.59	3.24	2.91

Internal PC Cooling Fan

Direct Air Flow to Internal Hot Spots

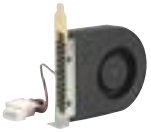
- 27 CFM
- Noise: 27dBA
- Fan life: 25,000 hrs
- Rated voltage: 12VDC @ 200mA
- Input power: 1.44W max.
- Operating voltage: 12VDC
- Connector: 4-pin male/female (pass thru) molex type
- Size: 3.4"W x 1.3"D x 3.6"H

SALE

Part No.	Description	1	10	25
138966	Cooling fan	$8.19	$7.34	$6.60

Back Panel PC Cooling Fan

- Type: sleeve axial fan
- Back panel mountable
- Operating volt.: 12VDC @ 200mA
- Airflow: 42 CFM
- Noise ratio: 26 dBA
- Power: 1.8W
- 10.5" wire with 4-pin Molex power connector
- One-year warranty
- Size: 4.3"L x 3.5"H x 1.1"Thick

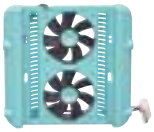


Part No.	Description	1	10	50
152240	PC cooler fan	$19.95	$17.95	$15.95

3.5" and 5.25" Hard Drive Cooling Assemblies

Dual Fans for Even Cooling

Keep your hard drive cool by using less space. These hard drive cooling fans have 2 high airflow fans that provide 70% heat dissipation.



175302

- RPM per fan: 3800
- Combined airflow: 28 CFM
- Dual 12V sleeve bearing fan
- Power consumption: 1.44W each
- Easy installation
- UL, CSA, CE approved
- Size: (175302) 5.7"L x 5.5"W x1.2"H
- Size: (175311) 5.5"L x 4.0"W x 0.5"H

SALE

175311

Includes: Mounting hardware

Part No.	Description	1	10	25
175302	HD cooler (5.25")	$16.29	$14.65	$13.18
175311	HD cooler (3.5")	15.59	13.99	12.59

3.5" Hard Drive Cooling Fan

- Airflow: 32 CFM, exhausts hot air from case through front panel vent
- Noise ratio: 26 dBA
- 3.5" drive bay mountable (includes mounting screws)
- Type: sleeve axial fan
- Power: 1.8 watts
- Operating voltage: 12VDC @ 200mA
- 9.5" wires with 4-pin Molex type power connector
- Size: 4.9"L x 4.0"W x 1.0"H

SALE

Part No.	Description	1	10	25
152258	HD-300 cooling fan	$8.95	$8.05	$7.25

Exhaust Fan PC Card

Exhaust/Intake Air

- Insert into card slot (non-electrical connection)
- The air duct can be extended and fan assembly reversed
- 12VDC, 20 CFM airflow eliminates hot air out of case while increasing flow through case
- Fan: CE/TUV/UL/CSA approved
- One-year warranty

SALE

Part No.	Description	1	10	25
124492	PC exhaust fan	$9.95	$8.95	$8.10

Fancard II PC Card

Increase Air Flow Between Cards

- CFM: 25
- MTBF: 30,000 hours
- Can be installed into any ISA slot
- Circulates air within case to keep all components from overheating
- CE approved
- One-year warranty

Part No.	Description	1	10
79020	Fancard II	$13.95	$11.72

3.5" Hard Drive Bracket with 3 Cooling Fans

This cooler bracket fits a 5.25" bay in front of your computer case. It also fits 3.5" hard drives and other internal 3.5" devices.

Back View

- Three 12VDC @ 90mA fans for cooling
- CFM rating: 5.6/fan
- Easy access air filter
- Vented beige face plate replaces 5.25" bezel of 5.25" bay
- Y adapter for hard drive and fan
- Weight: 0.8 lbs.
- See pg 138 for hard drives

Includes: Mounting hardware

Part No.	Description	1	10	25
170595	Hard drive cooler	$18.95	$16.95	$14.95

See pages 134 & 138 for our selection of Computer Cases and Drives

- We Match Any Advertised Price
- 30-Day Money-Back Guarantee
- Order 24/7/365 Days a Year
- Same Business Day Shipping Until 6:00 p.m. EST

Thermoelectric Coolers with Heat Sink

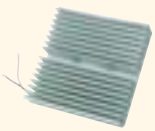
- Cools down to 45˚F
- Max. heat sink operating temperature: 100˚C
- Heat or cool by changing direction of current
- Operating voltage: 13-15VDC @ 4A (nominal)
- Rated lifetime over 200,000 hrs.
- 18 (AWG) wire leads, 3.0" length
- **Removed from original equipment**

131975: One heat sink

- Size: heat sink: 5.0"L x 5.0"W x 1.3"H; pump: 2.7"L x 1.8"W x 1.2"H

147942: Two heat sinks, top & bottom

- Size: heat sink: 5.0"L x 4.0"W x 1.4"H; pump: 6.0"L x 4.8"W x 0.7"H



131975

147942

Part No.	Description	Weight	1	10
131975	Thermoelectric cooler, 1 HS	1.9 lbs.	$27.95	$24.95
147942	Thermoelectric cooler, 2 HS	2.4 lbs.	29.95	26.95

Thermoelectric Cooler Chips

- Cools down to -30˚C (dependent on external temperature)
- T max. = 60˚C
- 20 AWG wire leads, 4" long
- Heat or cool by changing direction of current
- Operating voltage: 15.4VDC nominal

* Couples: # of P&N type semiconductor pairs connected electrically in series

172048

Part Number	Product Number	Couples*	Watts	Voltage (max.) DC	Current (max.) A	Size (L" x W" x T")	Pricing 1	Pricing 10
172030	TEC30	71	19.7	8.4	4	1.2 x 1.2 x 0.2	$19.95	$17.95
172048	TEC40	127	35.6	15.4	4	1.6 x 1.6 x 0.2	25.95	22.95
172056	TEC50	127	79.1	15.4	8	2.0 x 2.0 x 0.2	41.95	37.95

Part Number Color Code
New Sale Refurbished Closeout

5.6" Color TFT Monitor

NTSC Format

NEW

- TFT (active matrix) color LCD display
- 75,000 pixel display resolution
- Built-in 1 watt speaker
- Brightness and color adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.9"W x 5.4"H x 1.0"D • Weight: 1.9 lbs.

Requires: 12VDC regulated power supply, not included (recommend P/N 162996, pg 72)

Includes: RCA cable, mounting stand w/hardware

Part No.	Description	1	10
196381	5.6" TFT color monitor ...	$279.95	$259.95

10" Black and White Security Monitor with Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- LED indicator for power
- Push down front panel for vertical hold and size, brightness, volume, and contrast adjustments, power on/off switch
- Horizontal frequency, focus and sub-brightness adjustment, impedance input switch, 1 BNC female & 1 RCA jack for audio/video input/output
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.

Includes: Manual

Part No.	Description	1	10
192719	10" black & white monitor	$119.95	$107.95

GME Computer Monitor & NTSC Tester (Mac, PC and TV)

- Tests VGA, Super VGA, Mac monitors and TVs
- Checks full-field color bars, color raster, dots (static and dynamic convergence), cross-hatch and windows (power supply regulation, checks for a clear distinction between white and black portions)
- Two video connectors for TV, composite and S-video
- Connectors: HDDB15F, DA15F
- Power with either a 9V battery or an external DC adapter (recommend P/N 151095, pg 58 or P/N 100845, pg 72) • One-year warranty
- Size: 5.5"L x 3.0"W x 1.4"H • Weight: 0.7 lbs.

Part No.	Description	1	5
149729	Computer monitor tester	$179.95	$159.95

Toll-Free Technical Support
Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

14" Monitor Stand

SALE

- For 14" monitors
- 360˚ swivel
- 12.5˚ tilt
- Base size: 14"W x 12"D
- Weight: 4.0 lbs.

Part No.	Description	1	10	25
180339	14" monitor stand	$6.35	$5.68	$5.10

12" Monitor Stand

SALE

- For 12" monitors
- 25˚ tilt
- Anti-skid feet
- 360˚ swivel
- Base size: 11"W x 10"D
- Weight: 2.6 lbs.

Part No.	Description	1	10	25
180321	12" monitor stand	$4.39	$3.95	$3.54

Monitor/TV Wall Mount Brackets

- 95˚ swivel
- Assembly required
- Requires unit base to be mounted securely to wall stud
- Wall mount screws not included

181817: • Supports up to 66 lbs. • Weight: 9.0 lbs.
156988: • Supports up to 165 lbs. • Weight: 26 lbs.

Part No.	Description	1	10
181817	12"–18" TV wall mount	$29.95	$27.95
156988	20"–29" TV wall mount	64.95	59.95

4" TFT LCD Monitor

NTSC Format

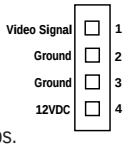
- TFT color LCD
- Resolution 234 x 383 dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire w/ 4 position molex type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.

Part No.	Description	1	10
172742	4" color LCD monitor	$159.95	$149.95

4" Active Matrix LCD Monitor

NTSC Format

- TFT active matrix
- Resolution: 234 x 383 dpi; RGB delta configuration
- Input voltage: 12VDC @ 500mA
- Power consumption: <800mA
- Video input: composite video signal I Vp-p; 75Ω
- Backlight: cold cathode filament tube
- 2" long stripped and tinned wires for power and video connection
- Wider view angle • Weight: 1.1 lbs.
- Size: 4.7"L x 3.4"W x 1.5"H (unit) 4.0"L x 3.3"W x 0.7"H (display)



Includes: Manual

Part No.	Description	1	10
154747	4" LCD color monitor	$279.95	$259.95

15"/17" SVGA Color Monitors

- Refurbished (mfr. may vary)
- 0.28mm dot pitch
- Resolution: 1280 x 1024 @ 60Hz
- Digital panel control
- Input voltage: 100-240VAC, 50/60Hz (auto switching)
- Power, contrast, brightness, horizontal and vertical size position, recall and trapezoid front control
- HDDB15 male connector • UL/CSA/TUV approved

153306: • Size: 14.5"W x 16"D x 14.6"H • Wt.: 45 lbs.
181905: • Size: 16.5"W x 17"D x 14.5"H • Wt.: 47 lbs.

Requirements: IBM PC/XT or higher compatibles

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
153306	13.5" diagonal view	$99.95	$89.95
181905	15.5" diagonal view	139.99	129.95

14" SVGA Color Monitor

- Refurbished (mfr. may vary)
- 13" diagonal view
- 0.28mm dot pitch
- HDDB15 male connector
- Power, contrast, brightness, horizontal & vertical position, recall & trapezoid knob adjustments
- Resolution: 1280 x 1024 @ 60Hz
- Input voltage: 100-240VAC @ 50/60Hz
- Size: 14.2"W x 14.6"D x 13.5"H • Weight: 25 lbs.

Requirements: IBM PC/XT or higher compatible

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
174537	13" diagonal view	$69.99	$64.99

Black & White CCD Camera with 6" Monitor

Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line resolution
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- S/N ratio: 48dB
- 2:1 interlace scanning system
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92˚
- Video output: 1Vp-p, 75Ω
- Size: 2.2"W x 2.8"D x 2.1"H

Includes: Camera bracket

Monitor: EIA Format

- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

Includes: 20M audio/video cable, manual and 15V @ 1A center positive power supply

Part No.	Description	1	10
170616	Camera w/ monitor.....	$159.95	$143.95

TRIPP-LITE isobar® Surge Suppressors

139686

74544

19001

185113

The world's best known, most advanced surge suppressors provide total protection against surges, spikes and line noise.

- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- "Cascade Circuitry" allows you to chose increased noise protection level for your most sensitive equipment
- UL 1449 and 1283 listed • Lifetime warranty
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 2, 4 & 6-outlet suppressors: 6' cord; 8 & 12-outlet suppressors: 12' cord
- Up to $50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!

SALE

ULTIMATE LIFETIME INSURANCE

MADE IN USA

Isobar Premium 19" Rack Mount Surge Suppressor

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
139686	IBAR12RM	750	12 outlet, 2 isolated filters	4.7	$99.95	$89.95

Isobar Premium Surge Suppressors

74456	ISOBAR 2-6	600	2 outlet, 1 isolated filter	1.8	$39.95	$34.95
18981	ISOBAR 4	2200	4 outlet, 2 isolated filters	2.4	49.95	44.95
74544	ISOBAR 6	2350	6 outlet, 3 isolated filters	2.7	49.95	44.95

Isobar Ultra Premium Surge Suppressor

136830	ISOBAR 4U	2200	4 outlet, 2 isolated filters	2.4	$53.95	$49.95
148021	ISOBAR 6U	2350	6 outlet, 3 isolated filters	2.7	59.95	57.95
19001	ISOBAR 8U	2350	8 outlet, 4 isolated filters	3.5	69.95	62.95

Isotel AC/Phone Line Surge Suppressor

185113	ISOTEL 4U	2700	4 outlet, 2 isolated filters	2.7	$57.95	$51.95

TRIPP-LITE Standard Surge Suppressors

124337

32045

168954

Economical and effective spike and noise suppression with diagnostic LEDs.

168954: $5,000 Ultimate Lifetime Insurance
168962: $25,000 Ultimate Lifetime Insurance
124337/32045: $35,000 Ultimate Lifetime Insurance
168962: includes RJ11 jacks for complete dataline protection

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
168954	Striker	480	Up to 27,000 amp spikes	1.2	$9.95	$9.25
124337	Super 7	1402	Up to 42,000 amp spikes	1.6	17.95	14.95
168962	Super 7+	1200	Up to 36,000 amp spikes	2.0	24.95	21.95
32045	Super 8	1200	Up to 54,500 amp spikes	1.7	29.95	26.95

TRIPP-LITE Line Conditioners

These line conditioners keep you working through brownouts and overvoltages.

- Automatically adjust incoming AC from 87 to 140 volts
- Built-in surge suppression and noise filtering
- Up to $25,000 Ultimate Lifetime Insurance for connected equipment

24619

Part No.	Product No.	Description	Agency	Wt. (lbs.)	1	10
24619	LS600	600 watts, 2 outlets	UL	4.5	$75.95	$72.95
22744	LC1200	1200 watts, 4 outlets	UL/CSA	8.6	129.95	116.95

TRIPP-LITE Internet Office UPS Systems

191521

185130

- Protects your PC, fax/modem and all peripherals against all types of power problems
- Automatic system shutdown with free PowerAlert software for 500VA and 700VA
- **191521:** 6-outlets, RJ45 for network protection
  185130/185148: 6-outlets, RJ11 for fax/modem protection
- Up to $25,000 Ultimate Lifetime Insurance for connected equipment • Up to 45 minutes runtime

Part No.	Product No.	Description	Agency	Wt. (lbs.)	1	10
191521	IO300	300VA, 6 outlets	UL/CUL	4.5	$79.95	$72.95
185130	IO500	500VA, 6 outlets	UL/CSA	16.0	134.95	124.95
185148	IO700	700VA, 6 outlets	UL/CSA	20.0	188.95	169.95

TRIPP-LITE Smart USB UPS Systems

- Protect USB PCs
- 6 outlets (3 surge and 3 UPS/surge) and RJ11 for fax/modem protection
- Automatic shutdown with PowerAlert software
- AVR corrects incoming voltage to 120 volts

185156

Part No.	Product No.	Description	Agency	Wt. (lbs.)	1	10
185156	500USB	500VA, 6 outlets	UL/CSA	15.5	$179.95	$161.95
185164	700USB	700VA, 6 outlets	UL/CSA	17.5	239.95	219.95

IBM 8-Outlet Surge Protectors

- UL1449 Transient voltage: 330V
- Clamping voltage: 270V
- 3-line protection
- Electrical rating: 125VAC @ 60Hz
- With integral 15A circuit breaker
- 4 standard/4 transformer outlets
- Max. surge voltage: 6000V
- Sliding outlet cover, LED indicator for surge protection, lighted power switch

191919/191935: Max. spike current: 65,000A
191927: Max. spike current: 52,000A

191919

191927

Part No.	Joules	Description	Wt. (lbs.)	1	10
191935	1420	Surge suppressor	2.0	$59.95	$43.15
191927	1420	2 RJ14 ports (cables included)	2.2	64.95	58.95
191919	1820	2 RJ14 & coax ports (cables included)	2.8	69.95	62.95

Power Base Surge Protectors

- Max. surge voltage: 6000V

20159: UL approved

- 5 switched AC power outlets, 1 unswitched and 2 RJ11 ports
- Max. energy dissipation: 50 joules/MOV, 150 joules
- Size: 13.9"W x 12.7"D x 1.7"H • Weight: 7.1 lbs.

195872: UL/CUL approved

- 5 switched AC power outlets
- Max. energy dissipation: 90
- Size: 12.0"W x 13.0"D x 2.3"H • Weight: 7.1 lbs.

20159

NEW

Part No.	Description	1	10
20159	Power base	$16.95	$14.95
195872	Power base	16.95	14.95

Intertex IX System Power/Surge Controller With Fax Modem Protection

4 Switched AC Power Outlets

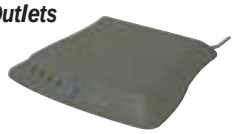
- Input voltage: 125VAC @ 50/60Hz
- Max. surge dissipation (AC): 900 joules
- Max. surge dissipation (telephone): 49 joules
- Max. spike current (AC) 12,000 amps
- UL 1449 clamping voltage (AC): 330V
- Top cover slides out for cord organization and extended outlet • Color: beige
- Size: 13.5"W x 14.5"D x 1.7"H • Weight: 4.2 lbs

SALE

Part No.	Description	1	10
185631	Power base	$24.95	$19.15

Intertex IX High-Power System Controller With Fax Modem Protection

4 Switched AC Power Outlets



- Input voltage: 125VAC @ 50/60Hz
- Max. surge dissipation (AC): 2250 joules
- Max. surge dissipation (telephone): 120 joules
- Max. spike current (AC): 117,000 amps
- UL 1449 clamping voltage (AC): 330V
- Color: gray
- Size: 14.0"W x 13.5"D x 1.7"H
- Weight: 4.4 lbs.

Part No.	Description	1	10
185640	Power base	$24.95	$22.49

Part Number Color Code
New Sale Refurbished Closeout

APC Automatic Voltage Regulator, Surge Protectors, Surge Arrest, Power Management

Automatic Voltage Regulator Series-LR

191302

- Nominal input voltage: 120VAC @ 50/60Hz (auto sensing)
- Input connection type: NEMA5-15P
- Output connection type: NEMA 5-15R
- Maximum line current: 8A
- Surge energy rating: 320 joules
- EMI/RFI noise rejection: 50dB
- Over voltage correction and brownout correction LED status indicator
- UL 1449 TVSS rating: 400V • Size: 5.0"H x 6.8"W x 8.4"D
- Two-year manufacturer warranty w/ $25,000 lifetime equipment protection policy

Part No.	APC No.	Watts	Weight (lbs.)	1	10
191302	LR600	600	12.5	$129.95	$116.95
191290	LR1250	1250	17.8	179.95	161.95

280-Watt Back-up UPS PRO Series-BPS

- Back-up time at half load: 23.4 minutes
- Typical recharge time: 4 hours
- Surge energy rating: 480 joules
- On-line, on-battery, replace battery, and overload LED status indicators
- Alarm when on-battery, distinctive low battery alarm, overload continuous tone alarm
- RJ45 modem/fax/DSL/10-100 base-T protection
- Nominal input/output voltage: 120VAC @ 50/60Hz (input auto sensing)
- Input connection type: NEMA5-15P
- Output connection type: NEMA5-15R
- Two-year manufacturer warranty w/ $25,000 lifetime equipment protection policy

Includes: Manual, Velcro cord management straps, Smart UPS signaling RS232 cable and CD-ROM software

Part No.	Product No.	Watts	Size (H"xW"xD")	Wt. (lbs.)	1	10
191345	BP280S	280	5.9 x 3.4 x 13.3	20.4	$149.95	$134.95

Basic Surge Protector Series-P6

- Nominal input voltage: 120VAC @ 50/60Hz (auto sensing)
- Receptacle style: NEMA 5-15R
- Surge energy rating: 320 joules
- Peak current normal mode: 13.0kAmps
- UL 1449 TVSS rating: 330V
- Lifetime manufacturers warranty with $1,000 lifetime equipment protection policy

Part No.	APC No.	Size (H"xW"xD")	# Receptacles	1	10
191281	P6	1.4 x 2.2 x 12.4	6	$14.95	$13.49

Basic Surge Protector Series-P7T

191329

- Nominal input voltage: 120VAC @ 50/60Hz
- Receptacle style: NEMA5-15R
- Surge energy rating: 420 joules
- Peak current common mode: 20.0kAmps
- UL 1449 TVSS rating: 330V
- Number of receptacles: 7
- Size: 1.4"H x 3.0"W x 2.0"D • Weight: 1.7 lbs.
- Lifetime warranty with $1,500 lifetime equipment protection policy

Includes: Manual and two 5' telephone cables

Part No.	APC No.	Description	1	10
191329	P7T6	Surge protector w/ 6' cord	$19.95	$17.95
191337	P7T10	Surge protector w/ 10' cord	24.95	22.95

Professional Surge Arrest Series-PRO7/PRO8

191311

- Nominal input voltage: 120VAC @ 50/60Hz (auto sensing)
- Pro7: 7 outlet; PRO8T2 & PRO28T2C: 8 outlet with RJ11 modem/fax/DSL protection; PRO8TV: 8 outlet w/ coaxial cable and RJ11 modem/fax/DSL protection • Receptacle style: NEMA5-15R
- Input connection style: NEMA5-15P • Surge energy rating: 320 joules
- Peak current normal and common mode: 13.0kAmps
- EMI/RFI noise rejection: 60dB • UL1449 TVSS rating: 330V
- Lifetime warranty with $10,000 lifetime equipment protection policy

Includes: PRO8 series: 5' telephone cable

Part No.	Product No.	Size (H"xW"xD")	Weight (lbs.)	1	10
191847	PRO7	2.0 x 4.3 x 10.5	2.3	$39.99	$35.99
191839	PRO8T2	1.8 x 8.0 x 5.8	2.5	57.99	52.19
191311	PRO8T2C	1.8 x 8.0 x 5.8	2.5	49.95	44.95
191791	PRO8TV	1.8 x 8.0 x 5.8	2.5	59.99	53.99

Power Manager-POW6T

- Nominal input voltage: 120VAC @ 50/60Hz (auto sensing)
- Number of receptacles: 6
- Receptacle style: NEMA5-15R
- Input connector type: NEMA5-15P
- Peak current normal mode: 13kAmps • Surge energy rating: 480 joules
- Peak current common mode: 26kAmps • UL1449 TVSS rating: 330V
- Lifetime warranty with $25,000 lifetime equipment protection policy

Part No.	Product No.	Size (H"xW"xD")	Weight (lbs.)	1	10
191804	POW6TWHT	1.7 x 12.5 x 14.6	6.0	$99.99	$94.99

Notebook Surge Protector-PNOTEPRO

191821

- Input voltage: 100-240VAC @ 50/60Hz (auto sensing)
- PNOTEPRO: C8 type connector (2-prong); PNOTEPRO3: C6 type connector (3-prong)
- Surge energy rating: PNOTEPRO – 120 joules; PNOTEPRO3 – 180 joules
- Input connection type: IEC 320 • RJ11 telephone protection
- Five-year standard warranty with $5,000 equipment protection policy
- Size: 1.5"H x 1.3"W x 4.8"D

Includes: Manual, 5' telephone cable and Velcro cord management

Part No.	Product No.	1	10
191821	PNOTEPRO	$39.99	$37.99
191812	PNOTEPRO3	39.99	37.99

BUSSMANN Line Conditioners

174203
174211

- Protects equipment from normal mode and common mode transients and noise
- Controls high frequency circulating ground currents
- Designed for computer equipment, telecommunications equipment, instrumentation equipment

174191/174203: 4-receptacle 174211: 6-receptacle

SALE

Part No.	Bussman No.	Load Current	Watts	Size (W"xD"xH")	Wt. (lbs)	1	10
174191	IPS06005R	5A	600	5.3 x 6.0 x 9.0	16.7	$59.95	$53.95
174203	IPS01000R	8.3A	1000	6.0 x 7.0 x 11.0	27.5	89.95	79.95
174211	IPS02000R	16.0A	2000	7.3 x 8.3 x 13.5	54.9	67.95	61.29

POWERWARE

300 Watt UPS System

With Dual Outlet

- Protects against blackouts and brownouts
- Battery charging: less than 6 hours to 90% usable capacity
- Battery backup time: 5–10 mins. @ full load; 10–20 mins. with partial load
- Input voltage: 120VAC @ 60Hz
- Output voltage: 120VAC
- Output current: 2.5 amps (full load)

SALE

Part No.	Product No.	Size (L"xW"xD")	Wt. (lbs.)	1	10
179961	PRB300A	5.8 x 3.4 x 13.2	12.4	$59.95	$48.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 185

6-Outlet Surge Protector

- Input: dual 3-prong input plug
- Output: 6 outlets
- Surge energy capability: 110 joules
- Surge voltage/current capability: 6000V/4500 to 6000A
- Response time: under 1 ns
- Clamping voltage: 400 volts
- Rating: 125VAC – 15 Amps
- Size: 4.3"H x 3.4"W x 1.0"D

NEW

Part No.	Description	1	10	25
195848	6-outlet protector	$4.95	$4.49	$3.95

6-Outlet Surge Protectors

156857

20175

156857:
- Max. spike current: 18,000 amps, 400 joules
- 3-prong, 4' power cord
- Plastic
- UL/CUL approved
- Size: 10.3"L x 2.0"W x 1.5"H

20175:
- Max. spike current: 4500 amps, 50 joules
- 3-prong, 4' power cord • Metal
- Size: 12.3"L x 2.4"W x 1.3"H

Part No.	Description	Wt. (lbs.)	1	10	100
156857	Plastic pwr strip	1.0 ..	$6.95	$6.25	$5.59
20175	Metal pwr strip	1.5	8.95	7.95	6.95

Woods 6-Outlet Power Strip

- Plastic housing
- 3-prong 4' power cord
- Grounded outlet receptacles
- 125V @ 15A built in circuit breaker
- Lighted on/off switch
- Color: beige
- Size: 10.1"L x 1.5"W x 1.0"H • Weight: 1.0 lb.

Part No.	Woods No.	Agency	1	10	100
172419	10728	UL/CUL	$6.95	$6.25	$5.59

4' Rack Cabinet 10-Outlet Power Strip

- Rating: 15A, 125VAC, 60Hz
- Surge protection and EMI/RFI filtering
- Cord length: 6' • Color: black • One-year warranty
- Size: 4.0'L x 2.0"W x 1.5"H • Weight: 4.0 lbs.

Includes: Universal mounting clips

Part No.	Description	1	10
144098	10-outlet power strip	$54.95	$49.95

Video Capture PCI Card

- Plug & play
- Supports RGB 32, 24, 15 formats
- AVI compatible
- Supports video conferencing applications
- One-year warranty
- Size: 4.8"L x 22"W

System requirements: Pentium® 100MHz or higher; available PCI slot; Windows® 95/98; VGA card with DirectDraw support

Includes: Manual and CD-ROM drivers

Part No.	Description	1	10	25
172793	Video capture card	$44.95	$39.95	$36.95

Video Capture Card with Camera

SALE

- Plug & Play PCI specification version 2.1 compliant
- CIF (common interlace format) for image capturing
- True motion codec (compression & decompression)
- Video conferencing, video messaging, editing and manipulation software suite
- NTSC/PAL/SECAM composite video capture at a full 640 x 480 resolution with 24-bit color depth
- Capture and compress video at rates of 30 frames per second
- Size: 4.8"L x 2.2"W • Weight: 0.8 lbs.

System requirements: Windows® 95 or better; Pentium® 133MHz or better; 16MB of RAM; 46MB hard disk space, 4X CD-ROM; PCI video board with 2MB of memory; 640 x 480 display with 8-bit color depth; available PCI slot.

Includes: Manual on CD-ROM, CD-ROM drivers, and camera

Part No.	Description	1	10	25
180110	Video capture card	$56.55	$50.89	$45.80

Adobe Photoshop 4.0 LE Bundle

Mac/Windows® Compatible

This limited-edition software gives you the power to create compelling images and prepare them for whatever media you choose.

SALE

Bundle contains:
- 1 Adobe Photoshop 4.0 LE
- 3 HP printer CD-ROM drivers
- 1 Jameco mouse pad, P/N 121363 (7.0"L x 5.5"W)
- Weight: 1.1 lbs.

Part No.	Description	1	10	25
172611	Photoshop bundle	$14.95	$12.95	$11.99

All-In-Wonder PRO AGP TV/Video Capture Card

NEW

- On-board 8MB synchronous RAM display buffer
- Separate horizontal and vertical sync
- 3D rage accelerator chip supports gouraud shading, perspective correction, alpha blending, Mip mapping, bilinear filtering, z-buffering 3D triangle set-up engine and dbx TB audio
- Turns your PC into an intelligent TV with zoom-in, schedule viewing, channel scanning, video capture, closed captioning, program transcript recording, instant replay functions
- Input/output connectors: HDDB15 female connector for monitor; 8-pin mini DIN connector for audio/video input and output; cable TV jack

Requirements: Pentium® or higher compatible; AGP slot; Windows® 95 or 98; VGA monitor with minimum 640 x 480 resolution

Includes: CD-ROM drivers; 3 A/V in & out cables

Part No.	Description	1	10
196963	TV/Video Capture Card ..	$149.95	$134.95

QuickCam VC

QuickCam lets you send video images and photos over the internet as easily as you now send text.

- Focus range: 1" to infinity
- 3.6mm lens with F2.0
- 46˚ field of view
- 24-bit color
- Image resolution: 352 x 288 pixels
- Supports BMP, TIFF, JPEG file formats
- TWAIN compliant to acquire and edit still images
- Captures 30 frames per second, audio and video capturing supported
- Supports AVI, RM file formats
- Parallel port interface (DB25 male connector)
- Size: (camera) 2.3" diameter • Weight: 1.0 lb.

System requirements: Pentium® 100MHz processor, 16MB of RAM, 10MB hard disk space for applications, CD-ROM, Sound Blaster compatible sound card, Windows® 95/98

Includes: Manual, 5-pin DIN to PS/2 adapter and CD-ROM drivers

Part No.	Description	1	10
191759	QuickCam	$39.95	$35.95

DEXXA USB WEBCAM w/ Motion Detection Software

- Create video images and send via email
- Capture still photos using motion detection software
- USB-A male interface
- Compatible with Windows® 98/ME/2000
- CMOS sensor • Manual focus lens
- Image resolution: 352 x 288 pixels
- Frame rate: up to 30 frames per second
- Size: 2.3" diameter • Weight: 1.0 lb.

System requirements: IBM PC with Pentium® 233MHz or higher compatible, Windows® 98/ME/2000, CD-ROM, available USB port

Includes: Mounting base, installation guide, CD-ROM drivers and software

Part No.	Description	1	10
191775	USB WEBCAM	$24.95	$22.45

USB PenCam Digital Camera

Still and Streaming Video Capable

- USB Interface
- Compatible with Windows® 98/ 2000 and ME
- High resolution 352 x 288 (20 still shots)
- Low resolution 176 x 144 (80 still shots)
- Up to 12 seconds of AVI streaming video
- Up to 2-hour battery life (full-time usage)
- 10-second self timer
- Size: 4.8"L x 1.3"W x 0.8"D
- One-year warranty

SALE

Requires: 2 AAA batteries not included (recommend P/N 185279 pg 58)

Includes: CD-ROM software bundle with Pocket Cam Manager, Photo Express 3.0, Photo Explorer 3.0, COOL 360 1.0, Video Live Mail Plus 3.11b, and Microsoft Net Meeting 5.0; 5' USB cable; camera stand and camera clip

Part No.	Description	1	10
177199	Digital PenCam	$79.95	$69.95

Part Number Color Code
New Sale Refurbished Closeout

PCI Ethernet Card

10/100Mbps

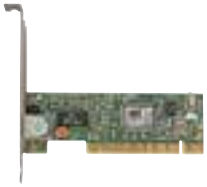
- LED indicators for diagnostics
- Supports Novell NetWare, Windows® 3.1/NT/95, LAN, UNIX Manager, TCP/IP
- FCC class approved
- Remote bootable socket • 32-bit PCI Bus

Includes: 3.5" disk drivers

Part No.	Description	1	10
153402	RJ45 (10/100Mbps)	**$19.95**	**$17.95**

PHOEBE PCI Ethernet Card

10/100Mbps, Auto Detect



173606

- 32-bit PCI bus mastering for high throughput and low CPU command
- Complies with IEEE 802.3 ethernet standards
- Full duplex and half duplex operation • RJ45
- Auto negotiation functions
- Plug & Play installation
- Auto set IRQs & I/O address
- LED indicators for link & activity status

Includes: 3.5" disk drivers and manual

Part No.	Description	1	10
173606	RJ45 (10/100Mbps)	**$14.95**	**$13.49**

ISA Ethernet Cards

10Mbps

144936

- Supports Novell NetWare, Windows® NT, LAN Manager, UNIX TCP/IP, Windows® 95/3.1
- LED indicators for diagnostics • FCC class approved

Includes: 3.5" disk driver

Part No.	Description	1	10
133022	RJ45	**$11.95**	**$10.95**
144936	RJ45 and BNC	**14.95**	**13.49**

PCMCIA Type II Combo BNC and RJ45 Ethernet Card

10Mbps

- 10BaseT/10Base2 adapter
- Supports Novell Netware® 3.x/4.x, Microsoft® LAN Manager, Windows® for Workgroups 3.11, Windows® 3.1 and Windows® NT 3.51, Windows® 95 and packet driver
- Weight: 0.8 lbs. • One-year warranty

Includes: RJ45 and BNC connectors, manual and 3.5" disk drivers

Part No.	Description	1	10
132581	PCMCIA network card	**$33.85**	**$30.47**

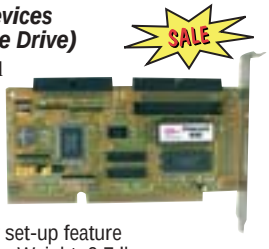
Ethernet Drop Cables

- DA15 connectors with metal hoods
- IEEE802.3 transceiver compliant

Part No.	Description	Lgth	Wt. (lbs.)	1	10
180734	DA15 M-F	2'	0.6	**$5.25**	**$4.75**
181340	DA15 M-F	10'	1.4	**5.95**	**5.65**

ISA Enhanced IDE

Supports 4 EIDE Devices (HD, CD-ROM, Tape Drive)



Provides multiword DMA transfer hardware (up to 8.33MB/sec.).

- ROM BIOS will auto-configure the hard drive parameters with any set-up feature
- One-year warranty • Weight: 0.7 lbs.

Includes: Manual and cables

Part No.	Description	1	10
127386	Enhanced controller	**$38.75**	**$34.79**

PCI Ultra ATA/66 and Enhanced IDE HD/CD-ROM Controller

Supports 2 Ultra ATA/66 and/or 2 EIDE Devices

- True Plug & Play support
- Ultra 66 BIOS on board supports Ultra ATA66/ ATA33, EIDE, and ATA-2 devices
- Compatible with DOS 5.0 and higher, Windows® 3.x/95/98/ NT3.x/NT4.x
- Size: 4.8"L x 2.1"W

Includes: 80 wire/40-pin cable (for Ultra ATA/66) and 3.5" drivers

Part No.	Description	1	10
167329	Enhanced IDE	**$39.95**	**$35.95**

OTEK Board-Based OEM Wireless RF Transceiver with RS-232 Port and PC Software

RF section:

- Operating frequency: 916.5MHz
- Data rate: (RF) on-off keyed: 19.2kB
- Max. peak transmit power: 1mW
- Receivers gain: 100dB
- Auto transmission: 32 characters
- Telemetry: every 30 characters
- Indoor/outdoor range: 100ft./300ft.

SALE

RS section:

- TS232C/485/TTL: 19.2kbps
- TTL/CMOS: 1 load • Characters: any
- Handshake: none required • Settings: 8N1

Overall specifications:

- Voltage input: 5VDC • Transmit current: 20mA
- Receive current: 10mA • Max # of nodes: 15
- Sleep current: 2mA

Part No.	Product No.	1	10
176508	TR200B	**$105.95**	**$95.35**

Ethernet 10Base5 to 10BaseT Transceiver

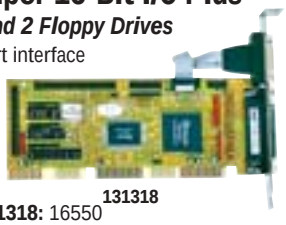
10Mbps

- For 10Mbps CSMA/CD LAN
- FCC class A approved
- LED indicators for power, link, receive and collision
- Size: 2.7"L x 1.6"W x 0.8"H
- One-year warranty

Part No.	Product No.	Description	1	10
130315	JE5001	10BaseT trans.	**$29.95**	**$26.95**

ISA IDE Super 16-Bit I/O Plus

Supports 2 IDE and 2 Floppy Drives



131318

- Parallel printer port interface (P/N 131318 is bidirectional)
- Game port
- Two RS232 serial ports
- UART emulation: **67061:** 16450; **131318:** 16550
- Weight: 0.9 lbs. • One-year warranty

Includes: Manual and cables

Part No.	Description	1	10
67061	16450 UART I/O	**$14.95**	**$13.49**
131318	16550 UART I/O	**29.95**	**26.95**

ISA EIDE Super I/O Controller

- Supports 4 EIDE devices (HD, CD-ROM, tape drive), 2 floppy drives, 2 parallel ports, SPP/EPP/ECP, 2 serial ports, 16550 compatible, 1 game port
- Compatible with DOS 6.2, Windows® 3.1, Windows® Workgroups 3.11, OS/2 and Netware 3.1x, 4.01
- Intelligent ROM BIOS automatically configures EIDE ports • One-year warranty
- Size: 6.5"L x 4.0"W • Weight: 1.1 lbs.

Includes: Manual and cables

Part No.	Description	1	10
138624	ISA-EIDE controller	**$49.95**	**$44.95**

ISA Fast SCSI-II Controller

- Compatible with DOS, Windows®, Windows® NT, Windows® 95, OS2 Netware, and SCO Unix
- Internal and external SCSI-II connectors
- Size: 6.3"L x 2.9"W
- Weight: 0.6 lbs.
- One-year warranty

Includes: Setting sheet, ribbon cable, and software (3.5" disk)

Part No.	Description	1	10
149294	ISA SCSI-II controller	**$44.95**	**$39.95**

PCI Ultra-II SCSI Controller

- AIC-7890AB chipset
- Windows® 95/NT, NetWare, OS/2 compatible
- Plug & Play design
- Internal and external Ultra-II SCSI 68-pin connectors
- Supports Ultra-II SCSI peripherals at speeds up to 80Mbytes/sec or Ultra/UltraWide peripherals up to 40Mbyte/sec
- Supports up to 15 SCSI peripherals
- Size: 6.0"L x 3.5"W • Weight: 0.3 lbs.

Part No.	Description	1	10
191513	Ultra-II SCSI	**$149.95**	**$134.95**

PCI 56kbps Fax/Modem/Voice

- Motorola 62412-51 chipset
- Data ITU-T V.90 and 56Flex compatible
- ITU-T V.34; V.32bis; V.32; V.22bis; V.22
- V.42bis and MNP-5 data compression compatible
- Full duplex speaker phone
- V.42 and MNP2-4 error correction compatible
- V.80 (H.324 video conferencing interface compatible)
- V.17 (14,400bps Fax) • Voice/audio mode
- Size: 4.7"L x 2.8"W • Weight: 0.6 lbs.

Includes: Manual, cable and drivers on CD-ROM

Part No.	Description	1	10
172881	PCI 56kbps modem	$37.95	$33.95

PHOEBE Modems

- Create voice and fax mail boxes w/ unique greetings
- Five fault locating tests
- Ultra reliable data transfer using V.42 bis/MNP5 error correction • FCC compliance
- PC/XT/AT and Pentium® compatibles

External 56kbps Fax/Modem

- 9-pin serial interface
- Data compatible to ITU-T V.34; V.32bis; V.32; V.22bis; V.22; V.21; Bell 212A and 103
- Fax compatible to ITU-T V.17; V.29; V.27ter; V.21
- Error checking compatible to V.42bis and MNP 2-4
- Data compression compatible to V.42 and MNP 5
- Enhanced AT command set, Fax class 1 and 2
- Data compatible to IUT-T V.90 and K56 Flex
- Size: 5.9"L x 4.6"W x 1.3"H • Weight: 2.3 lbs.

Includes: Serial and phone cable, CD-ROM drivers and manual, and 12VAC @ 1A power supply

Part No.	Description	1	10
145031	Serial modem (Rockwell)	$69.95	$62.95

ISA 56kbps Data/Fax Internal

With Voice Mail and Speakerphone

- Modulation standard: V.90, X2, V.34, V.32bis, V.32, V.29, V.27ter, V.22bis, V.23, V.22, V.21, V.17, Bell 212/103
- Compression: V.42bis, MNP class 5
- Error correction: V.42, MNP class 2-4
- Fax command: EIA/TIA 578 class I
- 16550 Compatible UART • COM ports: 1, 2, 3, 4
- IRQ 3, 4, 5, 7, 10, 11, 12 • Fax group III
- Size: 5.8"L x 3.4"W • Weight: 0.8 lbs.

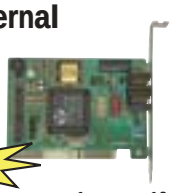
V.90 Dual Mode!

Includes: CD-ROM drivers and cable

Part No.	Description	1	10
145023	ISA 56kbps int. modem ...	$49.95	$44.95

ISA 14.4k Internal

Rockwell Chipset



- RC144ATF-P Rockwell chipset
- Windows® 95 compliant
- Jumper selectable IRQ 2, 3, 4, 5, 7
- Size: 4.1"L x 2.7"W

SALE

Part No.	Description	1	10
183441	14.4 internal modem	$7.15	$6.41

PCI 56kbps Internal Fax/Modem

- Data compatible to V.90; V.34; V.32bis; V.32; V.22bis; V.22; V.21 Bell 212A & 103
- Data modem error correction compatible V.42; LAP-M, & MNP2-4
- Data modem compression compatible V.42bis & MNP5
- Data fax compatible V.17; C.29; V.27ter; V.21; and group III fax class I • Size: 4.8"L x 2.4"W

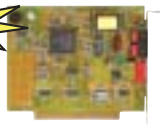
SALE

System requirements: 300MHz Pentium® or higher compatible; Windows® 95/98/2000; 32MB of RAM; 10MB hard disk space

Includes: Phone cable, manual and CD-ROM drivers

Part No.	Description	1	10
171918	PCI 56kbps int. modem ...	$20.69	$18.62

Perfect DataFax™ Fax/Modem



- 9600 bps fax
- 2400 bps modem, with MNP-5 software
- 8-Bit ISA card
- Made in the USA
- COM1 - COM4 switch selectable
- Five-year warranty • Weight: 1.6 lbs.

SALE

Part No.	Description	1	10
17013	Internal fax/modem	$9.95	$8.95

ZOOM ISA 33.6kbps Internal Fax/Modem

- 16550 UART with 16-byte bidirectional buffer for faster data throughput
- AT command compatible
- Group 3 FAX, class 1 and 2
- True V.34 (ITU international standard) 28800bps technology
- Supports V.34 ITU standard and V.Fast Class
- V.17 protocol for 14400bps fax capability
- V.42bis and MNP 5 data compression
- Ability to manually force MNP 5, V.42bis, V.42 or MNP 4
- Auto negotiation of data compression and error correction • Size: 4.6"L x 2.5"W

NEW

Part No.	Description	1	10
181796	Internal fax/modem	$24.95	$22.49

QUIKLINK Automatic Telephone Ring Down Unit

- Applications: elevator and door entry phones; in-office and off-premise emergency hotlines; tie lines between phones, PABX and Key systems; CO line simulators for sales demonstrations; testing rings, answering, and signal path functions in telecom repairs, installation and production
- Ringing power: 70V @ 20Hz modified square wave
- Power input: 12VAC @ 700mA (max.)
- Line feed type: two wire unbalanced
- Max. loop resistance: 600Ω
- Termination: 4-40 screws
- LED hook status indicator; ringing cadence: continuous/1 second on 1 sec. off/2 sec. on 2 sec. off/2 sec. on 4 sec. off; additional power input: 20-28VDC @ 300mA max.; RJ11 terminations

Part No.	Dimensions	1	10
179936	4.2"L x 2.5"W x 0.5"H	$99.95	$89.95

Ethernet Hubs

10Mbps

153891

153891: 5-port
- Connectors: 5 RJ45 (TP); 1 uplink (TP cascade)
- Size: 5.4"L x 3.8"W x 1.1"H

153904: 8-port
- Connectors: 8 RJ45 (TP); 1 uplink (TP cascade); 1 BNC
- Size: 7.8"L x 4.0"W x 1.2"H

Includes: Manual and power supply

Part No.	Description	Wt. (lbs.)	1	10
153891	10BaseT 5-port	1.4	$39.95	$35.95
153904	10Base2/T 8-port	1.7	49.95	44.95

3-Way Telephone Line Adapter

- Connect two or three devices (e.g. telephone, fax, modem) to one line
- Internal switch prevents interruptions; when one line is in use other lines cannot be used
- For standard telephone lines
- Size: 2.5"L x 1.8"W x 0.9"H • Cord length: 6' 7.5"

SALE

Part No.	Description	1	10
144848	3-way telephone adapter	$8.95	$7.95

Phone Line Busy Indicator

Perfect for multiple users who share one dedicated phone line.

- Compatible with all network services
- Strictly an indicator – will not interfere with emergency operation of phone line
- Size: 2.3"L x 1.3"W x 0.8"H

SALE

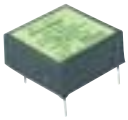
Part No.	Description	1	10	25
134261	Line indicator	$8.95	$7.95	$7.25

Busy Line Switch

- Prevents accidental line interruptions when line is currently in use
- RJ11 6P2C connector; cable 2'L
- One switch required for each extension phone on line
- Call display and call answer compatible
- Size: 2.1"L x 1.1"W x 0.8"H

Part No.	Description	1	10	25
120168	Busy switch	$11.95	$10.95	$9.95

Black Magic Telephone Ringing Generator



Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.

- Frequency: 20Hz
- Series resistor: 300Ω
- Nominal output voltage: 86 Vrms
- No reverse polarity protection

Part No.	Product No.	1	10	25
145816	LBMR12	$24.95	$22.49	$19.95

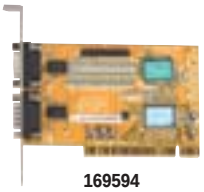
Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Part Number Color Code
New Sale Refurbished Closeout

PCI Ultra High-Speed I/O

Serial (16C550) and Parallel Port


169594

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable w/ throughputs up to 921.6 kbps
- Supports BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported

169594: 2 serial DB9M on card and 1 parallel DB25F panel bracket assembly

Part No.	Description	Wt. (lbs.)	1	10
146691	Single parallel	0.5	**$44.95**	**$39.95**
163707	Dual parallel	0.5	**49.95**	**44.95**
146667	Dual serial (16C550)	0.1	**49.95**	**46.95**
169594	2 serial (16C550) and 1 parallel	0.6	**59.95**	**53.95**

PCI High-Speed I/O Combo Card

2 Ea 16C650 Serial/1 ECP/EPP Parallel Port

- 16C650 UART compatible
- 2 ultra high-speed RS232 ports and 1 high-speed ECP/EPP parallel port
- Serial port transfer rate up to 921kB/sec and parallel port up to 2MB/sec
- 32-byte FIFO buffer • Supports IRQ sharing
- 32-bit PCI interface • Plug & Play ready
- 2 DB9 male & 1 DB25 female connector w/ bracket
- Size: 4.7"L x 2.9"W • Weight: 0.6 lbs.

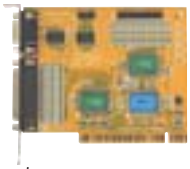
System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual, DB25F panel bracket assembly and drivers on CD-ROM

Part No.	Description	1	10
172013	2 serial/1 parallel	**$59.95**	**$53.95**

PCI 4-Port I/O

2 Serial 16C650 & 2 Parallel ECP/EPP/SPP/BPP



- Plug & Play compliant
- Serial port: SUN1889 chipset; 32 byte FIFO; compatible w/ 16V450.550.650 chip; RS-232 IEEE standard interface; 921kb/sec transfer rate
- Parallel port: SUN1689 chipset, 32 byte FIFO; ACC3203/ST78C36/HT6535 compatible chips; ECP/EPP/SPP IEEE standard interface; 2Mb/sec transfer rate • 2 DB9 male connectors and 2 DB25 female connectors
- Size: 4.7"L x 3.6"W • Weight: 0.8 lbs.

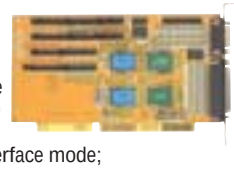
System requirements: 486/Pentium® & higher comp. Windows® 95/98/NT/2000; available PCI slot

Includes: Manual, cable and CD-ROM drivers

Part No.	Description	1	10
173260	PCI 4-port	**$59.95**	**$55.95**

ISA 4-Port I/O

2 Serial 16C650 and 2 Parallel ECP/EPP/SPP/BPP High Speed Ports



- Serial port: SUN1699 chipset; 32 byte FIFO; high-speed RS-232 V.24 serial interface; 921kb/sec transfer rate
- Parallel port: SUN1689 chipset; 32 byte FIFO; ECP/EPP/SPP/BPP interface mode; 2Mb/sec transfer rate
- Jumper selectable IRQ (3, 4, 5, 7, 9, 10, 11, 12, 15), address, parallel port mode, DRQ (1, 2, 3) and DACK (1, 2, 3)
- 2 DB9 male connectors and 2 DB25 female connectors
- Size: 7.0"L x 3.6"W
- Weight: 1.1 lbs.

SALE

System requirements: 486/586 and higher compatible; Windows® 95/98/2000/NT; available ISA slot

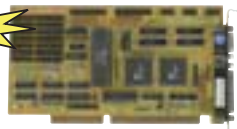
Includes: Manual, cable and CD-ROM drivers

Part No.	Description	1	10
173286	ISA 4-port card	**$24.69**	**$23.45**

ISA 2-Port I/O

4 Serial/2 Bidirectional & 1 Unidirectional Parallel Port

SALE



- 16550 UART
- 16 bit card
- Can be used in an 8-bit system w/ IRQ 3, 4, 5, 7
- Four serial ports – addressable to 3F8, 2F8, 3E8, 2E8
- Three parallel ports – addressable to 3BC, 378, 278
- All ports configurable to IRQ 3, 4, 5, 7, 9, 10, 11, or 12
- Ports are jumper selectable and can be disabled
- Parallel ports are mode selectable
- UART chips emulate 16550 UARTs
- Cables and panel brackets included for all ports
- 3 DB25 female parallel connectors
- 3 DB9 male and one DB25 male serial connectors
- Weight: 1.0 lb.

System requirements: IBM AT and higher comp.

Includes: Manual

Part No.	Description	1	10
117971	16-bit I/O card	**$32.75**	**$29.43**

RS232 Interface PCMCIA Card

PC card / PCMCIA-based serial port card.

- Low cost single port RS232 interface
- Uses 16550 UART
- 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- Configured as COM1, COM2, COM3 or COM4
- PCMCIA type II compliant

Includes: 1' cable

Part No.	Description	1	10
164451	PCM-COM232 card	**$99.95**	**$89.95**

Parallel Port Complete

Lakeview Research A practical,hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

Complete specifications see page 130

Part No.	Description	Size (in.)	Wt. (lbs.)	1	10
138261	Parallel Port Complete w/ SW	7 x 10	1.4	**$39.95**	**$35.95**

Bidirectional Serial/Parallel Converter

115.2kbps, 512 kb Buffer

- One DB25 female connector, one Centronics 36-pin male connector
- DCE/DTE selectable
- Fully compatible with Windows® 95
- Baud rate: 300 bps - 115,200 bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Stop bits: 1 or 2 • One-year warranty
- Size: 3.8"L x 2.4"W x 1.0"H • Weight.: 0.8 lbs.

Includes: 9 VAC @ 200 mA adapter

Part No.	Description	1	10	50
182983	Converter	**$54.95**	**$49.95**	**$45.95**

16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/ VGA/FDC/HDC, game, & most I/O
- Control card installs inside your PC with four external slots • One-year warranty
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318 & P/N 78326, pg 55)
- Size: 9.5"L x 6.8"W x 1.0"H • Weight.: 5.5 lbs.

System requirements: IBM PC/XT and higher comp.

Part No.	Description	1	10
131238	PC slot extender unit	**$279.95**	**$251.95**

Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS232 interface (DB25 female)

ATEN

Part No.	Description	1	10	25
116581	Short haul modem	**$29.95**	**$26.95**	**$23.95**

Token Ring-to-RJ45 Adapter

- Easy connection to UTP cabling
- Use type A or B style data connector with RJ45 jack
- Determine cable length (flexibility)
- Dimensions: 2.5"L x 1.0"W

Part No.	Description	1	10	100
125461	Token ring	**$11.95**	**$10.75**	**$9.75**

Token Ring to Cable Connector Kit

Requires Assembly

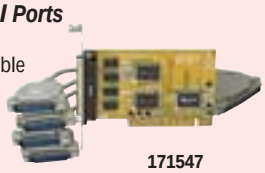
- Token ring to cable connector
- 10 piece kit
- Color: black
- Material: plastic

SALE

Part No.	Description	1	10	100
183290	Token ring conn.	**$2.95**	**$2.66**	**$2.39**

PCI High-Speed Serial I/O

2/4/8 16C650 Serial Ports


171547

- 32-byte FIFO
- Plug & Play compatible
- Standard RS232 interface
- Transfer rate: up to 921kb/sec.
- Supports IRQ sharing

172005: Dual 16C650 Serial Ports
- Two DB9 male connectors
- Size: 4.7"L x 2.8"W • Weight: 0.5 lbs.

171547: Quad 16C650 Serial Ports
- Size: 4.7"L x 2.8"W • Weight: 0.9 lbs.

Includes: Manual, cable (37-pin male to 4 DB25 male) and drivers on CD-ROM

171660: Eight 16C650 Serial Ports
- Size: 6.5"L x 3.6"W • Weight: 1.8 lbs.

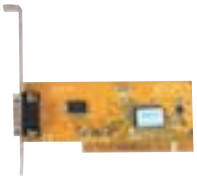
Includes: Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

System requirements: 486 and higher compatible, Windows® 95/98/NT/2000

Part No.	Description	1	10
172005	2-port PCI serial	$59.95	$53.95
171547	4-port PCI serial	119.95	107.95
171660	8-port PCI serial	179.95	161.95

PCI Single-Port Serial I/O

Single 16C550 Port



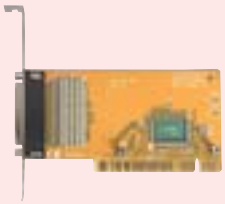
- Plug and play ready
- Transfer rates up to 921kb/sec.
- 32-bit PCI bus interface
- 32 byte FIFO
- Supports IRQ sharing
- Size: 4.8"L x 1.8"W
- One-year warranty

System requirements: 486/Pentium® and higher compatibles; Windows® 95/98/NT/2000

Part No.	Description	1	10
171361	Single serial	$38.95	$35.95

PCI Ultra High-Speed Parallel Card

Single Ultra High-Speed Port



- Supports ECP and EPP
- 32-byte FIFO
- Transfers data up to 2MB/sec.
- Supports IRQ sharing
- Plug & Play ready
- 1 DB25 female connector
- 32-bit PCI interface
- Size: 4.7"L x 2.2"W
- Weight: 0.5 lbs

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171926	PCI single parallel	$39.95	$35.95

30-Day Money-Back Guarantee
If you're not satisfied we'll take it back!
Details on page 185

ISA High-Speed 32-Byte Serial I/O

32-Byte Single/Dual 16C650 Serial Port

171993

- 32-byte FIFO
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- DB9 male connector
- Size: 5.0"L x 2.0"W

System requirements: 486/586 or higher compatible, Windows® 95/98/NT

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171993	Single serial	$17.95	$15.95
172380	Dual serial	19.99	18.99

ISA 4-Port Serial I/O

Quad 16C550 Serial Ports

- High-speed 16C550 UARTs with 16 or 32-byte FIFO
- 4 serial ports; 2 each DB9M and DB25M
- IRQs: 3, 4, 5, 9, 10, 11, 12, or 15
- Weight: 0.7 lbs.
- One-year warranty

COM	Address	COM	Address
1	3F8	5	3F0
2	2F8	6	3E0
3	3E8	7	2E0
4	2E8	8	260

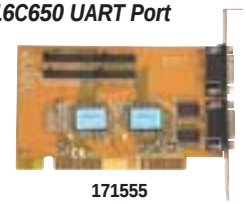
System requirements: IBM AT and higher compatibles

Includes: DB25 male and DB9 male panel bracket assembly and instruction sheet

Part No.	Description	1	10
132572	4-port hi-speed serial	$59.95	$53.95

ISA High-Speed 16-Byte Serial I/O

16-Byte Single/Dual 16C650 UART Port


171555

- 16-byte FIFO
- Transfer rates up to 921kb/sec
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- Weight: 0.5 lbs.

171504: Single High-Speed Serial Port
- RS232 V24 standard serial interface
- 1 DB9 male connector
- Size: 5.0"L x 2.0"W

171555: 2 High-Speed Serial Port
- 2 DB9 male connectors • Size: 5.0"L x 2.7"W

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171504	Single serial	$14.95	$13.49
171555	Dual serial	24.95	22.49

Serial Port Complete

Lakeview Research RS-232 and RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware & programming are often misunderstood. This book provides you with everything you need to design, program, install & troubleshoot the links you set up. (306 pages, 1998)

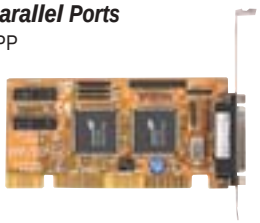
- Size: 7" x 10" • Weight: 1.3 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
154771	Serial Port Complete Book	$39.95	$35.95

ISA 2-Port Parallel Printer Card

Dual Bidirectional Parallel Ports



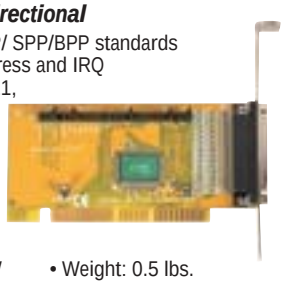
- Supports ECP/EPP/SPP
- Select from IRQs: 3, 4, 5, 7, 9, 10, 11, 12, or 15
- Address selectable to LPT1-LPT6
- Print mode jumper selectable
- Weight: 0.6 lbs.
- One-year warranty

System requirements: IBM AT & higher compatibles

Part No.	Description	1	10	25
132214	2-port printer	$24.95	$22.45	$19.95

ISA High Speed Parallel Card

21.4MB/Sec. Bidirectional



- Supports ECP/EPP/ SPP/BPP standards
- Printer mode, address and IRQ (3, 4, 5, 7, 9, 10, 11, 12, 15) jumper configurable
- 32-byte FIFO
- DB25 female connectors
- Supports DACK 1-3 and DRQ 1-3
- Size: 5.0"L x 2.2"W • Weight: 0.5 lbs.

System requirements: IBM PC/AT compatible with 16-bit ISA slot

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10	25
171651	Single parallel	$14.95	$12.95	$11.95

ISA High-Speed 4-Port Serial I/O

Quad 16C650 Serial Ports

- 32-byte FIFO
- 16-bit ISA interface
- MS-DOS, Windows® 3.x, 95 and NT compatible
- Four 16C650 ultra high-speed serial ports
- Supports COM 1-8 and IRQs 3-15 (jumper selectable)• Supports IRQ sharing
- Size: 6.2"L x 4.3"W • One-year warranty

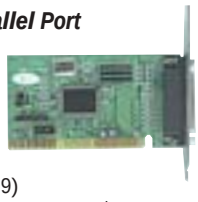
System requirements: IBM PC/AT & AT compatibles

Includes: 37-pin male to 4 DB25 male cable and manual

Part No.	Product No.	Wt. (lbs.)	1	10
152291	4042A	1.2	$54.95	$49.95

ISA Single-Port Parallel Printer Card

Single Bidirectional Parallel Port



- Single standard and bidirectional port
- Jumper selectable for printer address and port (LPT1 - LPT3)
- Jumper selectable for IRQ addressing (3, 4, 5, 7, 9)
- Size: 4.0"L x 2.0"W • One-year warranty

System requirements: PC/XT/AT and higher

Part No.	Product No.	1	10	25
155660	KW508G	$19.95	$17.95	$14.95

Part Number Color Code
New Sale Refurbished Closeout

USB-A Female Cables & Bracket

- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long

Part No.	Description	1	10	25
144813	USB-A panel mount	$6.95	$6.25	$5.59

ATEN

USB-to-Centronics Printer Cable

USB-A Connector

- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers

Part No.	Description	1	10	25
155352	6' USB cable	$29.95	$26.95	$23.95

USB Cable Extenders

191441

SALE

- Extends the distance between USB devices by up to 16'
- Complies with USB electrical and timing specifications
- Compatible with high and low speed USB devices
- Interface: USB-A male to USB-A female
- Size: (adapter): 2.8"L x 1.5"W x 0.6"H
- Weight: 1.0 lb.

Includes: USB-A male to USB-B female cable

Part No.	Description	1	10	25
191433	8' USB extender	$24.95	$19.15	$15.95
191441	16' USB extender	29.95	22.95	19.15

QTRONIX.

Win 98 107-Key USB Keyboard with PS/2 Port

- IBM PC with USB-A port or higher compatible
- Windows® 95/98 compatible
- ACPI keys (wake-up, sleep, and power) for Windows® 98 • Adjustable tilt mechanism
- Detachable ergonomic wrist wrest
- Tactile key stroke – high quality rubber mechanical switches • 20,000,000 life cycles per switch
- PS/2 mouse port at back of keyboard
- Size: 18.7"L x 6.7"W x 1.0"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
189317	Scorpius 980+	$29.95	$26.95	$23.95

USB 3-Button Mouse

USB-A Connector

SALE

- Ergonomic design for comfortable feel
- Color: gray
- One year warranty
- Size: 4.4"L x 2.4"W x 1.0"H

Part No.	Description	1	10
155686	USB-A ergonomic mouse	$6.75	$6.09

USB-A to Joystick (DB15) Adapter

SALE

- Fully compatible with any 15-pin game port PC game controller
- Mode switch selector for maximum compatibility and flexibility
- USB Plug & Play
- Input connector: USB-A male
- Output connector: DB15-pin female connector • Size: 3.2"L x 2.3"W x 1.3"H

System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher

Includes: Manual and 3.5" drivers

Part No.	Description	1	10
189510	USB to game port adapter	$39.95	$28.95

USB Gender Adapters

USB-A to USB-B

169375

169383: USB-A (male) to USB-B (female)
169375: USB-A (female) to USB-B (male)

Part No.	Description	1	10	25
169383	1.3"L x 0.4"W	$6.95	$6.35	$5.59
169375	1.7"L x 0.6"W	6.95	6.35	5.59

USB-to-Parallel Printer Adapter

SALE

- Single chip (ASIC) USB to parallel host-to-host communication
- USB full speed communication and bus powered (12Mbps data throughput)
- USB specification Rev 1.1 compliant
- Size: 2.7"L x 2.4"W x 1.0"T

System requirements: Standard USB 4-pin port; Windows® 98/2000/NT 5.0

Includes: 3.5" diskette drivers, 5'6" USB-A to USB-B male cable and manual

Part No.	Description	1	10	25
173008	USB to para. adptr.	$23.85	$21.45	$19.30

USB-to-RS232 Serial Converter

- Real Plug & Play and Hot-Plugged device
- 1 upstream port with USB-B female connector
- 1 downstream port with DB25 female connector
- Compliant with USB specification Rev. 1.1
- No power consumption
- Automatic USB protocol handling
- Size: 3.0"L x 2.2"W x 0.8"H • Weight: 0.6 lbs.

System requirements: IBM compatible PC with Pentium® processor and USB connectivity, Windows® 98/OSR 2.1 & 16MB of RAM

Includes: 6' USB-A male to USB-B female cable and 3.5" driver diskette

Part No.	Description	1	10
164048	USB-B to serial converter	$49.95	$44.95

Bulk USB Cable

For USB Connectors see page 154

SALE

- 150 volt rating
- Temperature rating: 80˚C
- Red and black wire: 24 AWG stranded (7/32)
- Green and white wire: 28 AWG stranded (7/36)
- **Prepackaged: order in increments of 25', 100' or 1000'**

Part No.	Description	25 ft.	100 ft.	1000 ft.
173139	USB cable	$4.00	$14.00	$120.00

USB Cables

169359 175417 175425

USB-A Male to USB-B Male

Part No.	Description	1	10	25
175417	3' cable	$3.95	$3.49	$2.95
169359	6' cable	4.95	4.49	3.95
169367	10' cable	5.95	5.25	4.59

USB-A Male to USB-A Male

Part No.	Description	1	10	25
175425	3' cable	$3.95	$3.49	$2.95
175433	6' cable	4.95	4.49	3.95
175441	10' cable	5.95	5.25	4.59

USB Network Cable

No Card Networking

Network up to 17 computersvia hot plug and play technology without network cards. Transfer data at over 5Mbps, while sharing printers, CD-ROM drives, modems, and scanners.

- 6' cable with USB-A male connectors
- One-year warranty

SALE

System requirements: Intel Pentium® compatible or higher; 1 standard USB port; Windows® 98

Includes: 3.5" diskette USB device driver

Part No.	Description	1	10	25
172970	USB network cable	$30.95	$29.43	$27.95

USB-A to PS/2 6 DIN Adapter

SALE

- Input connector: USB-A male
- Output connectors: two 6-pin mini DIN
- Compliant to USB specification 1.1
- Supports energy saving suspend and remote resume operations
- Plug & Play compatible

System requirements: IBM PC/AT compatible system, Windows® 95/98/NT/2000/XP

Includes: Manual and 30" USB-A cable

Part No.	Description	1	10	25
168751	USB-A to PS/2	$18.95	$17.85	$16.95

IEEE-1394 Firewire Cables

SALE

175821 175839 175847

Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant • UL approved
- Molded connectors • Length: 6'

Part No.	Description	1	10	25
175821	4-pin M – M	$15.95	$14.49	$12.95
175839	6-pin M – 4-pin M	11.95	10.74	9.49
175847	6-pin M – M	9.95	8.94	8.04

2-Port USB-A PCMCIA Card

- PCMCIA type II card
- 32-bit
- USB1.1 OHCI USB standard
- Maximum speed: 12Mbps
- Size: 4.6"L x 2.1"W

Includes: Manual

Part No.	Description	1	10
189499	PCMCIA to USB	$89.95	$80.95

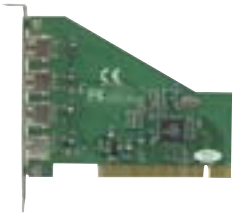
2-Port USB-A PCI Card

- Plug & Play compatible
- Uses VIA VT83C572 controller chip
- USB specification V.1.1 compatible
- USB legacy BIOS supports
- Operates in USB-aware operating system (Win® 95, 98)
- Size: 4.7"L x 2.0"W
- One-year warranty

Includes: Manual

Part No.	Description	1	10	25
155299	PCI USB	$29.95	$26.95	$23.95

4-Port USB-A PCI Card

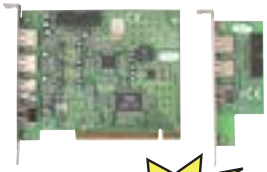


- OPTi 82C862 chipset
- Full compliance with USB Spec Rev 1.1
- PCI specification V.2.1 compliant
- Plug & Play compatibility with external devices
- Auto detects speed and connection of devices
- Tiered star topology supporting up to 5 tiers and 127 devices
- Size: 4.9"L x 3.7"H

System requirements: IBM or compatible with 586 or higher processor; 64MB of memory; available PCI slot; Windows® 98 or higher

Part No.	Description	1	10	25
189042	PCI USB	$49.95	$44.95	$39.95

7-Port USB-A PCI Card



- VIA VT83C572 chipset
- USB spec V.1.1 compatible
- Fully plug and play compatible
- Intel UHCI (Universal Host Controller Interface) V.1.1 register compatible
- One-year warranty
- Size: (main board) 4.8"L x 3.6"W
- Size: (extension board) 1.5"L x 2.9"W

SALE

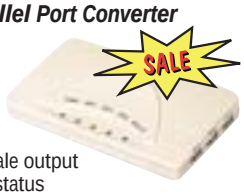
System requirements: Pentium® processor or higher compatibles; one PCI slot; Windows® 95 or higher; 16MB of RAM

Includes: Manual and 9" extension cable

Part No.	Description	1	10	25
172961	PCI USB	$32.25	$30.60	$29.07

External 3-Port USB Hub

With Serial and Parallel Port Converter



SALE

- Supports throughput up to 12Mbps
- Connectors: USB-B female input; 3 USB-A female output; DB25 female output; DB9 male output
- LED indicator for link status
- Size: 5.4"L x 3.0"W x 0.9"H • Weight: 2.1 lbs.

System requirements: Windows® 95 OSR 2.1 or Windows® 98 and PC with USB port

Includes: Manual, 5VDC @ 2A power supply and USB-A male to USB-B male cable

Part No.	Description	1	10
172785	3-port USB hub	$54.75	$51.98

External 4-Port USB Hub

USB-A Female Plug & Play! Daisy Chainable!

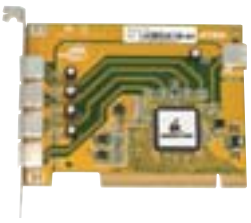
- 4 USB-A female ports
- Supports throughput up to 12 Mbps as well as OHCI and UHCI
- Auto selected self and bus powered modes
- Over current protection and detection per port
- Hot swappable • One-year warranty
- Size: 5.0"L x 2.8"W x 1.0"H • Weight: 1.5 lbs.

System requirements: Windows® 95 OSR 2.1 or Windows® 98; PC with USB port

Part No.	Description	1	10
155678	4-port USB hub	$34.95	$29.95

ATEN 5 Port USB 2.0 PCI Card

40 Times Faster Than the Original USB!



USB 2.0 will offer enhanced functionality, allowing more devices to share the increased bandwidth.

- Supports high speed data transfer rate of up to 480 Mbps
- Full backwards compatible with USB 1.1
- Supports Windows® 98/98SE/2000/ME/XP and Mac OS 8.6 or greater
- Hot swappable Plug & Play
- 1 internal USB-A port
- 4 external USB-A ports
- PC Power Management v2.2 compliant

NEW

Part No.	Description	1	10
197940	5-port USB 2.0 PCI card	$59.95	$53.95

We'll Send It Today
99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

External 7-Port USB Hub

- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 127 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H
- Weight: 2.6 lbs.

Includes: 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	1	10
191450	7-Port USB hub	$49.95	$44.95

USB Docking Station

Perfect for notebook users and managing multiple peripherals. You only use one cable to manage multiple peripherals instead of multiple cables.

- Input connector: USB-B male
- Output connectors: 2 USB-A female; 2 PS/2 female (keyboard and mouse); RJ45 jack, DB9 male; and DB25 female ports
- LED indicators for power and USB status
- Size: 4.5"L x 2.9"W x 1.0"H
- Weight: 2.1 lbs.

Includes: 5VDC @ 2.1A wall transformer, USB-A male to USB-B male cable, and CD-ROM drivers

Part No.	Description	1	10
190553	USB docking station	$99.95	$89.95

USB Switch Box

- Allows 4 PCs to share a single USB device
- Input connectors: 4 USB-B male connectors
- Output connectors: 1 USB-A female or 1 USB-B male connector
- Push button type switch for host selection
- Bus powered
- Size: 3.0"L x 3.0"W x 1.7"H

Part No.	Description	1	10
189464	4 computers to 1 device	$19.95	$17.95

USB-A IrDA Transceiver

Convert your computer's unused USB-A port to an infrared communications port.

- Data transmission rate: 4Mbps/sec.
- Meets IrDA V1.0 and V1.1 specifications
- Input connector: USB-A male connector
- Size (including base): 3.2"L x 2.3"W x 1.8"H

System requirements: Windows® 98/2000/ME; USB-A port

Includes: Installation manual and 3.5" disk drivers

Part No.	Description	1	10
190941	USB to IrDA transceiver	$54.95	$49.49

Part Number Color Code
New Sale Refurbished Closeout

Replacement Batteries

126754:
- Lithium half AA
- Voltage: 3.6V (Tadiran)
- Amps: .85A-h
- Diameter: .579"

150965:
- Alkaline pack w/ connector (Ray-O-Vac)
- Voltage: 4.5V • Amps: 600mA-h

126754 150965

Part No.	Description	1	10	25	100
126754	Lithium half AA	$7.95	$6.95	$6.25	$5.59
150965	Alkaline pack	8.95	7.95	6.95	5.49

Macintosh® to IBM Monitor Adapters and Cables

Allows use of Macintosh® computer with IBM monitor (DA15 male to HDDB15 female).

126439

126439:
- 10 position DIP-switch supports 6 kinds of signal modes and resolutions
- Size: 2.0"L x 1.5"W
- One-year warranty

119538

119538:
- For Power Macintosh® 6100 and 7100 computers
- Size: 1.5"L x 1.6"W

183345:
- DA15 female to HDDB15 male
- Size: 2.2"L x 1.6"W x 0.6"H

183353:
- DA15 male to HDDB15 male
- Size: 6'L • Weight: 0.7 lbs.

SALE

Part No.	Description	1	10
126439	Mac to IBM adapter	$8.95	$7.95
119538	PPC 6100/7100 to IBM adapter .	1.29	1.12
183345	Mac to IBM (SVGA)	4.95	4.49
183353	Adapter cable	4.59	4.12

Macintosh® Cable for Hayes Compatible Modem

- Connect Mac & Performa Series to Hayes compatible modem
- Length: 6'
- DB25M to mini DIN8M

SALE

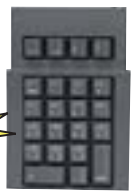
Part No.	Description	1	10	50
169236	Modem cable	$.55	$.48	$.45

QTRONIX®

22-Key Macintosh® Keypad

- Fully compatible with Macintosh® PowerBook computers and other ADB computers
- Numeric and function keys
- Tactile click sound and touch feeling
- Auto-repeat function
- Two-key roll over
- 10 million cycles per switch
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs.

SALE



Part No.	Description	1	10
176823	Scorpius 22ADB	$24.95	$22.58

macally

Single Button Mouse

- 275 CPI resolution
- Soft, quick, responsive mechanical click button
- ADB connector
- 29" cord
- Size: 4.8"L x 2.4"W x 1.2"H
- One-year warranty

Part No.	Description	1	10	25
150480	Single button	$16.95	$15.49	$13.95

Panasonic® & SONY® Floppy Disk Drives

- 1.44MB capacity

154608: Panasonic
- Compatible with late model Quadras, all Power PCs and G3s
- Size: 5.7"L x 4.0"W x 1.0"H

154579: Sony
- Compatible with Mac-II series, SE30 and early Quadras (700, 900, 950)
- Size: 5.8"L x 3.8"W x 1.0"H

SALE

154608

Part No.	Description	Wt. (lbs.)	1	10	25
154608	Manual insert	1.2	$39.95	$35.95	$31.95
154579	Auto insert	1.7	49.95	48.25	43.40

MW MEAN WELL

60 Watt Switching Power Supply for Apple® IIGS

- Fully regulated
  +5VDC @ 6A,
  +12VDC @ 2A,
  -5VDC @ 0.5A,
  -12VDC @ 0.5A
- Input voltage: 115VAC
- 4 mounting holes
- Data included
- 6" output cable with 7-pin Molex connector
- Size: 11.3"L x 3.4"W x 2.2"H
- Weight: 2.3 lbs.
- One-year warranty

SALE

Includes: Three pronged removable power cord

Part No.	Description	1	10	25
85518	60W power supply	$22.49	$21.32	$20.25

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 185

Apple Macintosh® Cables

SALE

177519 10604 175417 130024 10591 73162

Printer Cables

Part No.	Description	1	10	50
177519	3' mini DIN8M	$3.95	$3.49	$2.95
10604	6' mini DIN8M	4.95	4.45	3.99
130024	10' mini DIN8M	4.95	4.49	3.95
10591	6' DB25M to mini DIN8M	4.95	4.49	3.95

SCSI Cables

Part No.	Description	1	10	50
73162	6' Centronics 50M-50M	$6.95	$6.49	$5.95
72848	1.5' 50-pin SCSI socket ribbon cable	4.95	4.45	3.95
129971	SCSI-I terminator	.25	.22	.20

USB-A to USB-B Cables

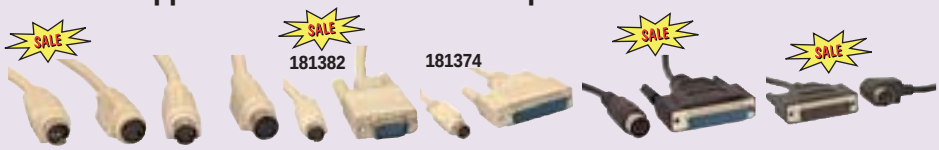
Part No.	Description	1	10	25
175417	3' cable	$3.95	$3.49	$2.95
169359	6' cable	4.95	4.49	3.95
169367	10' cable	5.95	5.25	4.59

Network Cable Kit

Part No.	Description	1	10	50
73269	8-pin mini DIN to RJ11 PhoneNet kit	$1.95	$1.72	$1.54

Apple Macintosh® Printer/Adapters/Extension Cables

SALE


181420 181391 181382 181374 180566 180591

Extension Cables

Part No.	Description	Length (ft.)	1	10	50
181420	4-pin mini DIN male to female	6	$.79	$.69	$.62
180494	4-pin mini DIN male to female	10	1.39	1.25	1.12
181391	8-pin mini DIN male to female	6	1.95	1.49	.95
180486	8-pin mini DIN male to female	10	1.39	1.25	1.12

Printer Cable

Part No.	Description	Length (ft.)	1	10	50
181382	8-pin mini DIN male to DB9 female	6	$5.95	$5.49	$4.95

Adapter Cables

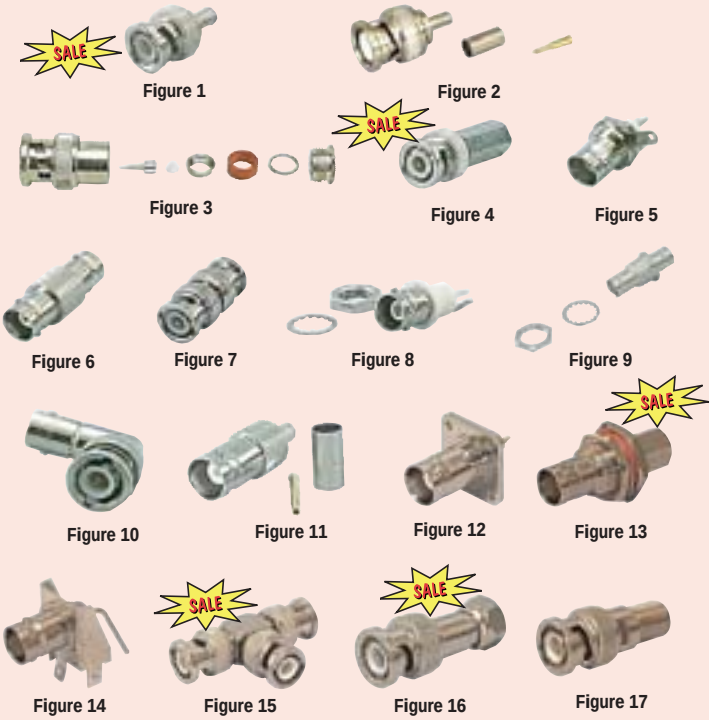
Part No.	Description	Length (ft.)	1	10	50
180558	8-pin mini DIN male to DB25 male	3	$1.39	$1.25	$1.12
181374	8-pin mini DIN male to DB25 male	6	2.95	2.49	1.75
180566	8-pin DIN male to DB25 male	1.5	1.39	1.25	1.12
180591	8-pin DIN rt. angle male to DB25 male	2	1.39	1.25	1.12

We carry major manufacturers – call for OEM PRICING.

BNC Coax Connectors

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4 GHz

Part No.	Fig.	Description	1	10	100	500
71458	1	BNC male terminator (50Ω)	$1.35	$1.09	$.75	$.59
71790	1	BNC male terminator (75Ω)	1.35	1.09	.89	.59
102306	1	BNC male terminator (93Ω)	.49	.45	.40	.36
135618	2	BNC male with pin and ferrule (RG6)	.69	.55	.29	.25
71482	2	BNC male with pin and ferrule (RG58)	1.19	1.07	.96	.76
71271	2	BNC male with pin and ferrule (RG59/62)	1.09	.89	.69	.49
112109	2	BNC male with pin and ferrule (RG174)	1.19	.99	.79	.55
119394	3	BNC male clamp-on (RG59/62)	1.35	1.09	.75	.59
108994	4	BNC male twist-on (RG58)	1.49	1.25	.99	.79
71781	4	BNC male twist-on (RG59/62)	1.09	.89	.75	.55
71589	5	BNC female panel mount (UG-1094A)	1.19	1.07	.96	.86
71909	6	BNC female/female coupler (UG-914)	.89	.69	.59	.53
127343	7	BNC male/male coupler (UG-491B/U)	1.49	1.25	.89	.79
111561	8	BNC female isolated bulkhead	1.95	1.75	1.57	1.35
148224	9	BNC female bulkhead feed-thru.	1.49	1.25	.99	.79
148232	9	BNC female isolated bulkhead feed-thru.	1.75	1.57	1.41	1.27
127351	10	BNC M-F right angle (DG-306B/O)	2.25	1.95	1.49	1.25
160928	11	BNC female, crimp type (RG58)	1.09	.89	.69	.55
161921	11	BNC female, crimp type (RG174)	1.25	.99	.79	.65
174289	12	BNC female chassis mount	1.45	1.29	1.15	.99
174297	13	BNC female twist-on bulkhead	2.25	1.95	1.79	1.59
174271	14	BNC female right-angle chassis mount	2.95	2.65	2.39	2.19
174318	15	Male to male/male T adapter	2.45	2.19	1.97	1.77
174262	16	BNC male to F connector male	1.79	1.59	1.49	1.29
174254	17	BNC male to F connector female	1.49	1.25	1.09	.89



BNC PCB Mounting Connectors

- **146528:** Ideal for applications where multiple insertions will require a connector which can endure the stress of high torque
- **146510/161656:** Maintains matching impedance at 50 and 75Ω. Ideal for LAN cards and precision video

Part No.	Description	Length (L)	1	10	100	500
146528	BNC straight metal	.719"	$1.95	$1.75	$1.49	$1.25
146510	BNC right-angle plastic insulation	1.37"	1.95	1.75	1.49	1.25
161656	BNC right-angle metal	.861"	2.25	1.75	1.29	.99

BNC/RCA Adapters

- Convert existing cabling systems to more readily available parts for expansion, replacement or upgrade

Part No.	Description	1	10	100	500
114788	RCA female to BNC male adapter	$1.25	$1.12	$.99	$.69
114753	RCA male to BNC female adapter	1.35	1.21	1.09	.79
114770	BNC female to "F" connector male adapter	1.49	1.25	.99	.75
159441	RCA female to female adapter	1.25	1.09	.95	.85

BNC Coax T-Adapters

Application: general purpose coax T-adapter; ThinNet/Ethernet LAN adapter
- Color: silver

Part No.	Description	1	10	100	500
118594	Male to female/female T-adapter	$2.39	$2.19	$1.95	$1.79
72629	Female to female/female T-adapter	1.95	1.75	1.25	.99
100589	Male to female/female T-adapter (90°)	3.95	3.55	3.19	2.89
100597	Male to female/female T-adapter (180°)	4.75	4.25	3.49	2.75
117461	Male to female/female F-adapter (90°)	3.49	2.95	2.25	1.95

Amphenol

BNC and Type N 50Ω Cable Plugs

BNC 3-Piece

- Silver-plated
- Frequency Range: 0 – 4GHz w/ low reflection

Part No.	Amphenol No.	Cable Type	Attachment (outer/inner)	1	10	50
188306	31-320-RFX	RG58/184	crimp/crimp	$1.69	$1.59	$.95
188314	31-321-RFX	RG59	crimp/crimp	1.69	1.59	.95
188349	31-315-RFX	RG174/188/316	crimp/crimp	2.19	1.95	1.09

Type N

- Silver-plated

Part No.	Amphenol No.	Cable Type	Attachment (outer/inner)	1	10	50
188461	82-202-RFX	RG8/9/144/165	clamp/solder	$5.49	$4.95	$4.49
188445	82-5375-RFX	RG58/141	crimp/crimp	3.95	3.49	3.19

Amphenol

BNC 50Ω Adapters

- Silver-plated
- Frequency range: 0-4GHz w/ low reflection

Part No.	Amphenol No.	Description	1	10	50
188411	31-219-RFX	Straight jack-to-jack	$2.59	$1.95	$1.49
188429	31-208-RFX	Jack-plug-jack	4.69	3.59	2.39
188402	31-220G-RFX	Gasketed jack-to-jack	4.08	3.29	2.09

BNC Coax Network Balun

- Converts BNC coaxial cable to twisted-pair wires with both a modular (RJ11)jack and 2 screw terminals
- 100Ω termination

Part No.	Description	1	10	50
72637	BNC coax network balun	$7.95	$7.15	$6.45

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Part Number Color Code
New Sale Refurbished Closeout

MCX Crimp Attachments for Flexible Cable

- For RG-174/U, 188/U, 316/U cable
- Frequency range: 0-6GHz
- Mating: 50Ω snap-on coupling
- Temperature range: -65˚C to +165˚C
- Outer/inner cable attachment: crimp/solder
- Construction: gold plated

188592: MCX crimp plug
188605: MCX crimp jack
188613: MCX right angle plug

188592

188605

188613

Part No.	Amphenol No.	1	10	50
188592	919-101P-51SX	$4.85	$3.95	$3.49
188605	919-107J-51SX	4.55	3.75	3.25
188613	919-104P-51AX	5.49	4.55	3.95

MicroMate™ (MMCX) Connectors

188541

188568

188576

188584

- Frequency range: DC thru 6GHz
- Temperature range: -40˚C thru 90˚C

Edgecard
188541: Edgecard Jack • Contact: BeCu
PCB Mount
188568: Straight plug • Brass, machined
Cable Plug Connectors
- Inner/outer cable attachment: crimp/solder
- Captivated contact

188576: Straight for RG-174/U, 188/U, 316/U cable
188584: Right angle for RG-178/U, 196/U cable

Part No.	Amphenol No.	1	10	50
188541	908-22100	6.99	$6.29	$5.65
188568	908-21103	6.29	5.65	4.99
188584	908-43200	7.75	6.49	5.95
188576	908-41300	6.75	5.55	4.75

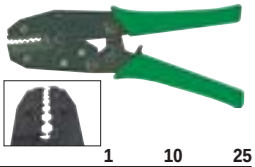
SMA Brass Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- For RG-174/U, RG-188/U and RG-316/U cables

Part No.	Amphenol No.	1	10	50
188488	901-9877-RFX	$2.49	$2.10	$1.85

Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction
- Size: 8.5"L x 2.5"W
- Weight: 1.1 lbs.



Part No.	Product No.	1	10	25
114534	HT-3019	$19.95	$17.95	$15.95

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

SMA Connectors and Adapters

157972 153365 145381 145373 153453 159468 153592 159476

- Application: cellular phone, data communication, instrumentation and video

Part No.	Description	Cable Type	Plated	1	10	50	100
157972	SMA 50Ω crimp type male plug connector	RG58	Gold	$2.95	$2.49	$1.95	$1.75
153365	SMA 50Ω crimp type male plug connector	RG174	Gold	3.49	2.95	2.49	2.25
145381	SMA straight female PCB mount connector, 4 legs	—	Gold	5.25	4.75	4.25	3.49
145373	SMA 90˚ female PCB mount connector, 4 legs	—	Gold	5.25	4.75	4.25	3.75
153453	SMA female to BNC male adapter	—	Nickel	2.49	2.25	1.75	1.49
159468	SMA female to BNC female adapter	—	Nickel	2.49	2.25	1.55	1.39
153592	SMA male to BNC male adapter	—	Nickel	2.95	2.25	1.75	1.59
159476	SMA male to BNC female adapter	—	Nickel	2.75	2.49	2.25	1.95

SMA Connectors and Couplers

153293 161277 161293 161306 153285 159530 160021 160012

- 50Ω impedance
- Frequency range: 0-18GHz
- Temperature range: -65˚C to 165˚C
- Plating: gold and nickel
- Type: couplers, right angle, bulkhead connectors

***159530/160021:** Solder cup

Part No.	Description	Cable Type	Plated	1	10	50	100
153293	SMA straight coupler female – jack-to-jack	—	Gold	$2.25	$1.95	$1.49	$1.25
161277	3-way coupler, 1 male – 2 female	—	Gold	3.25	2.75	2.25	1.95
161293	Straight coupler male – male	—	Gold	2.49	2.25	1.75	1.49
161306	Right angle coupler male – female	—	Gold	3.49	2.95	2.25	1.95
153285	SMA bulkhead solder female w/ washer, rear mount	RG58/174	Gold	2.49	2.25	1.95	1.49
159530*	SMA female panel mount conn., 4 mounting holes	RG58/174	Gold	2.95	2.65	2.35	2.10
160021*	SMA female panel mount conn., 2 mounting holes	RG58/174	Gold	2.49	2.25	1.65	1.39
160012	Panel mount feed thru connector female – female	—	Nickel	3.25	2.75	2.25	1.95

SMA PCB Connectors

- Gold plated brass, 4 legs
- Frequency range: 0-18GHz
- Terminal type: blunt post

Jacks
188509: PCB straight
188525: PCB right angle
Receptacles
188496: PCB straight
188517: PCB right angle

188509 188525 188496 188517

Part No.	Amphenol No.	1	10	50
188509	901-144-8RFX	$3.69	$2.95	$2.25
188525	901-143-6RFX	5.95	4.95	3.79
188496	901-9895-RFX	3.49	2.95	2.49
188517	901-9894-RFX	6.49	5.49	4.49

Rotary Coax Cable Strippers

2 and 3 Blade

159118 (3 Blade): Two settings RG58/59/62
- For cable sizes 4-10mm
- Size: 4.2"L x 1.3"W
- Color: black

159185 (2 Blade): Four settings RG58/59/62/174
- For cable sizes 4-12mm
- Size: 3.9"L x 0.7"W
- Color: gray

159118

Ò159185

Includes: Hex key wrench for adjusting blade

Part No.	Product No.	1	10	25
159118	HT312B (3 blade)	$10.95	$9.95	$8.95
159185	HT332D (2 blade)	10.95	9.95	8.95

SMB PCB Jack Connectors

- SMB bulkhead jacks for RG174 cable
- 50Ω crimp type
- Gold plated
- Use with crimping tool P/N 114534, pg 97

Part No.	Description	1	10	50
172363	Bulkhead crimp female	$3.49	$2.95	$2.49
172371	Bulkhead crimp male	3.49	2.95	2.49

SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper

SALE

Part No.	Description	1	10	50
167311	Fem. right angle PCB	$4.95	$3.85	$3.19

RCA Jacks

SALE

112475 169501 185842 159484 172339

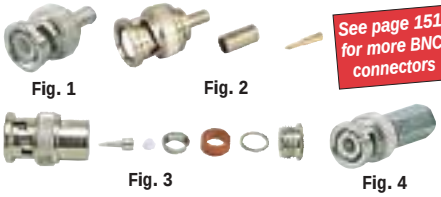
- Standard RCA jacks for audio and video signals
- See page 163 for RCA cables

Part No.	W x D x H (ins.)	1	10	100	1000
112475	.42 x .57 x .48	$.39	$.29	$.25	$.15
169501	.40 x .85 x .50	.25	.19	.12	.09
185842	.44 x .59 x .47	.39	.29	.25	.15
159484	.84 x .38 Black	.49	.39	.32	.19
172339	.84 x .38 Red	.39	.32	.25	.19

Call for OEM pricing – we carry major manufacturers.

BNC Coax Male Connectors

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz.



See page 151 for more BNC connectors

BNC Terminators (Fig. 1)

Part No.	Description	1	10	100	500
71458	50Ω	$1.35	$1.09	$.75	$.59
71790	75Ω	1.35	1.09	.89	.59
102306	93Ω	.49	.45	.40	.36

BNC with Pin and Ferrule (Fig. 2)

135618	RG6	$.69	$.55	$.29	$.25
71482	RG58	1.19	1.07	.96	.76
71271	RG59/62	1.09	.89	.69	.49
112109	RG174	1.19	.99	.79	.55

BNC Clamp-On (Fig. 3)

119394	RG59/62	$1.35	$1.09	$.75	$.59

BNC Twist-On (Fig. 4)

108994	RG58	1.49	$1.25	$.99	$.79
71781	RG59/62	1.09	.89	.75	.55

BNC Hex Crimping Tool

RG58/59/62/142

- Crimps BNC connectors to RG58/59/62/142
- Crimps center pin
- Adjustable grip opening
- Insulated grip handles
- Size: 9.0"L x 2.0"W • Weight: 1.5 lbs.

Part No.	Product No.	1	10	25
159302	HT106D	$12.95	$11.95	$10.95

SMA/SMB 50Ω Coax Cables

Fig. 1: SMA male to SMA male
Fig. 2: SMA male to SMA right angle male
Fig. 3: SMA right angle male to SMA right angle male
Fig. 4: SMB male to SMB male

Part No.	Cable	Fig.	Lgth (ft.)	1	10	50
159370	RG58	1	2.0	$3.95	$3.49	$2.75
159396	RG58	1	6.0	4.95	4.49	3.49
169800	RG174	1	0.5	3.75	3.25	2.75
163854	RG174	1	1.0	3.95	3.49	2.75
153381	RG174	1	2.0	4.25	3.75	2.95
153390	RG174	1	4.0	4.95	3.95	3.49
159450	RG174	1	6.0	5.75	5.25	4.75
175126	RG174	2	0.5	4.49	3.95	3.49
175134	RG174	2	1.0	4.95	4.25	3.75
175142	RG174	3	0.5	5.75	5.25	4.49
175151	RG174	3	1.0	6.25	5.75	4.75
175169	RG174	4	0.5	4.25	3.75	2.95
175177	RG174	4	1.0	4.75	4.25	3.25

F-Type 75Ω Coax Cables

- Typical application: F connector (VCR)
- Low signal loss
- Strain relief
- Male to Male F-type

Part No.	Cable	Lgth (ft.)	1	10	50	100
177228	RG6	3	$2.39	$2.15	$1.95	$1.75
85585	RG59	3	2.39	2.15	1.95	1.75

30 AWG Tri-Color Wire/Dispenser

Includes: Three 50' spools of 30 AWG wire (blue, white and red) and push button cutter

Part No.	Product No.	1	10
117807	WD-30-TRI	$24.95	$22.49

BNC Coax Cables

- Male coax connectors

RG6 75Ω Cables

Part No.	Description	1	10	50	100
176794	3' BNC to BNC	$3.95	$3.19	$2.75	$2.35
176815	6' BNC to BNC	4.95	4.49	3.95	3.59

RG58/U 50Ω Cables

- For Ethernet networks, oscilloscopes

* **152311** has male and female coax connectors

Part No.	Product No.	Lgth (ft.)	1	10	50	100
181307	CRG58-1RR	1	$2.49	$2.25	$1.95	$1.75
102314	CRG58-1	1.5	2.25	1.95	1.75	1.49
11404	CRG58-3	3	2.75	2.49	2.25	1.95
102331	CRG58-6	6	3.25	2.75	2.49	2.25
152311*	RG58MF-6	6	2.95	2.49	2.25	1.95
180822	CRG58-10	10	3.95	3.49	2.75	2.25
102349	CRG58-12	12	4.49	3.95	3.49	2.75
169818	CRG58-15	15	4.39	3.95	2.95	2.65
180849	CRG58-22	22	4.95	4.49	3.95	3.49
102357	CRG58-25	25	5.49	4.95	4.49	3.49
102365	CRG58-50	50	7.95	6.95	4.95	4.49
102381	CRG58-100	100	13.49	10.75	9.35	7.60

RG59/U 75Ω Cables

- For CATV and video patch cords

Part No.	Product No.	Lgth (ft.)	1	10	50	100
86471	CRG59-1	1.5	$2.49	$2.25	$1.75	$1.49
85542	CRG59-6	6	2.95	2.49	2.25	1.95
102373	CRG59-12	12	4.49	3.95	3.25	2.49

RG174/U 50Ω Cables

- For Ethernet networks, oscilloscopes

Part No.	Product No.	Lgth (ft.)	1	10	50	100
111472	RG174U3	3	$3.25	$2.75	$2.49	$1.95
111481	RG174U6	6	3.49	2.95	2.75	2.25

RG Type Bulk Coaxial Cable

RG6 (75Ω): • Nominal. capac. 16.2pF/ft. • Center resist. 1.1Ω/3ft. @ 77˚F
RG58/U & RG58A/U (50Ω):
• Nominal capacitance. 27pF/ft. • Center resistance. 10.4Ω/1kft. @ 77˚F
RG59/U (75Ω): • Nominal capac. 19pF/ft. • Center resist. 16.5Ω/kft. @ 77˚F
RG174/U (50Ω): • Nominal capac. 30.8pF/ft. • Center resist. 97Ω/kft. @ 77˚F
• **Prepackaged and priced in increments of 100' or 1000'**

SALE

Part No.	Product No.	Description	100 ft.	1000 ft.
177210	RG6	For CATV, satellite	$17.50	$149.00
102226	RG58/U	For ethernet, oscilloscopes (solid 20AWG)	8.00	65.00
116898	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	14.00	100.00
102218	RG59/U	For CATV &d video patch cords (solid 22AWG)	11.00	80.00
112037	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	15.60	140.00

Thin Ethernet Coaxial Cable

- Braided overall shield • Thin ethernet coaxial cable • RG58 • 50Ω impedance
- Stranded copper with center conductor • Meets IEEE 10Base2 specifications
- **Prepackaged and priced in increments of 25', 100' or 250'**

SALE

Part No.	Product No.	Description	25 ft.	100 ft.	250 ft.
172507	A7H9907-250	Thin ethernet coaxial cable	$2.00	$7.00	$15.00

Coaxial Cable Stripper

- Strips RG58, 59 and 62 cable
- Replaceable blades • Size: 4.2"L x 0.8"W

For our complete selection of tools, see pages 94-101

Part No.	Description	1	10
73066	3-bladed coax cable stripper	$12.95	$11.65

BNC Coax T-Adapters

SALE

See page 151 for more BNC adapters

Application: general purpose coax T-adapter; ThinNet/Ethernet LAN adapter

Part No.	Description	1	10	100	500
118594	Male to female/female T-adapter	$2.39	$2.19	$1.95	$1.79
72629	Female to female/female T-adapter	1.95	1.75	1.25	.99
100589	Male to female/female T-adapter (90°)	3.95	3.55	3.19	2.89
100597	Male to female/female T-adapter (180°)	4.75	4.25	3.49	2.75
117461	Male to female/female F-adapter (90°)	3.49	2.95	2.25	1.95

BNC 50Ω Adapters

- Frequency range: 0-4GHz w/ low reflection • Silver-plated

Part No.	Amphenol No.	Description	1	10	50
188411	31-219-RFX	Straight jack-to-jack	$2.59	$1.95	$1.49
188429	31-208-RFX	Jack-plug-jack	4.69	3.59	2.39
188402	31-220G-RFX	Gasketed jack-to-jack	4.08	3.29	2.09

Part Number Color Code
New Sale Refurbished Closeout

.100" IDC Plug Connectors

Double Row
- .100" x .100" grid
- Shrouded header w/o mounting ears
- Contact: gold-plated phosphor bronze • Plastic
- Use with IDC socket for connectors, pg 53

29217

Part No.	Product No.	Contacts	1	10	100
29188	P40	40	$1.75	$1.49	$.99
29217	P50	50	1.95	1.75	1.25

USB-A & B Connectors and Pins

159716 USB-A

161023 USB-A

159716/174060: USB A & B Male Connectors
- 3-part housing: tin plate over brass and glass fiber
- 4-pins (P/N 159724) required per USB connector

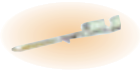
174060 USB-B

161023/174051: USB A & B Female Connectors
- PC mount right angle with board locks

159724: Male Crimp Pin
- Pin for P/N 159716 (4 required)
- Contact brass
- Use P/N 159265 for crimping tool, pg 97

174051 USB-B

✻ **Prepackaged: order in increments of 10, 100 or 1000**


159724

Part No.	Description	1	10	100	1000
159716	USB-A connector (M)	$.55	$.45	$.29	$.25
161023	USB-A connector (F)	.69	.59	.49	.35
174060	USB-B connector (M)	.89	.79	.69	.59
174051	USB-B connector (F)	.65	.55	.39	.29
159724	Crimp pin for 159716 .. ✻	.10	.06	.04	

Extraction Tools for Crimp Pins

- Quickly and easily extract 0.093" locking pins from interlocking connectors
- Heavy duty metal construction
- Precision design • Length: 5"
- See far right for crimp pins, P/N 42729 & 42649

131887

Part No.	Product No.	Description	1	10
131887	HT319C	Male tool for 42729	$7.95	$6.99
131879	HT319B	Female tool for 42649	7.95	6.99

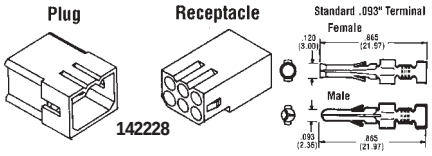
See page 97 & 98 for our selection of Crimping Tools

.093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.
- Voltage: 250VAC
- Temperature range: -40˚C to +105˚C

142181: • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male terminals • Current: 12A
142201: • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male terminals • Current: 9A
142228: • 2 ea. 6-pin plugs & receptacles, 14 ea. female & male terminals • Current: 9A

Includes: Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire

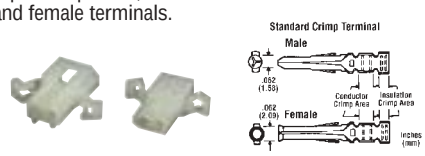


Part No.	Molex No.	Description	1	10	50
142181	1545	Kit	$4.95	$4.49	$3.95
142201	1490	Kit	4.95	4.49	3.95
142228	1261	Kit	5.25	4.75	3.95
142236	W-HT-2038	Ext. tool	14.95	13.49	12.15

062" Power Connector Kit

This assortment kit contains mating sets of housings and pins.
- Voltage: 250VAC • Current: 5A
- Temperature range: -40˚C to +105˚C

Includes: 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male terminals and female terminals.



Part No.	Molex No.	Description	1	10	50
142113	1625-2	Kit	$6.49	$5.75	$4.95

Power Connectors & Pins

Connector & Housing Specifications:
- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

Crimp Pin Specifications:
- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 24-18 AWG
- Use crimp tool P/N 99442, pg 97

For 5.25" Disk Drives and Power Supplies

42075 & 42067 Connector Housings:
- Keyed mating connectors
- External key bar indicates pin 1

109145 117567 42729 (Male for 42075) 42649 (Female for 42067) 42075 (Male) 42067(Female)

- See far left for extraction tools, P/N 131887 & 131879

✻ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
109145	4-pin M vertical PCB mtg ✻	$.49	$.39	$.25	
117567	4-pin M PCB mounting, horizontal edge mount .... ✻	.59	.53	.39	
42075	4-pin M housing ..... ✻	.23	.14	.12	
42067	4-pin F housing ..... ✻	.23	.14	.12	
42729	M crimp pin for 42075 .... ✻	.10	.09	.06	
42649	F crimp pin for 42067 ..... ✻	.10	.09	.06	

For 3.5" Disk Drives and Power Supplies

114930 114999 SALE 114921

✻ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
114930	4-pin F housing .....✻	$.19	$.15	$.08	
114921	F crimp pin for 114930 ✻	.10	.06	.04	
Part No.	**Description**	**1**	**100**	**1000**	
114999	4-pin M rt. angle PCB mtg	$.35	$.25	$.12	

ATX Power Connectors for Motherboards and Power Supplies

- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25˚C to 85˚C
- Insulation resistance: 1000MΩ min. • Withstanding voltage: 1500V/min.

147379: ATX male 20-pin edge mount connector
- Material: nylon 66, UL-94VO
- Material of post: tin-plated brass • Diameter of post: .045"

147387: Housing connector
- Material: nylon 66, UL-94VO

147395: ATX power terminal pins
- Material: tin-plated brass

SALE

147379 147395 147387

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	L	W	H	Dia	Use With	1	100	1000
147379	20-pin male connector	1.7"	0.4"	0.6"	—	—	$.59	$.53	$.48
147387	20-pin housing connector	1.7"	0.4"	0.8"	—	147395	.19	.17	.15
147395	Power terminal pin, female	.59"	—	—	.068"	147387	✻ .12	.08	.05

AT Power Connectors for Motherboards and Power Supplies

- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25˚C to 85˚C
- Insulation resistance: 1000MΩ minimum • Withstanding voltage: 1500V/min.

78300: AMP60G male 6-pin PCB mount connector
- Material of post: tin-plated brass • Diameter of post: .09"

78326: AMP50G female 6-pin housing connector
- Material: nylon

78318: AMP501T terminal pin
- Material: tin-plated brass

78300 78318 78326

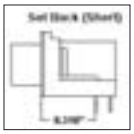
✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	L	W	H	Dia	Use With	1	100	1000
78300	6-pin male connector	.93"	.37"	.57"	—	—	$.45	$.39	$.35
78326	6-pin housing connector	.94"	.25"	.74"	—	78300	.35	.29	.25
78318	Power terminal pin, female	.69"	—	—	.09"	78326	✻ .10	.06	.04

D-Subminiature Connectors

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)
- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT, UL rated 94V-0

Right Angle PC Mount Connectors



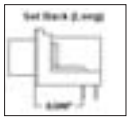
0.318" Set Back

- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A

* High Density

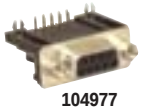
15149

Part No.	Product No.	Cont.	Gender	1	10	100	500
104942	DB9P318	9	M	$.49	$.35	$.28	$.20
104951	DB9S318	9	F	.55	.45	.35	.29
71124	DA15P318	15	M	.65	.55	.39	.32
77956	DA15S318	15	F	.65	.55	.35	.29
168743	HDDB15P318*	15	M	.55	.49	.45	.39
71466	HDDB15S318*	15	F	.59	.41	.25	.15
15149	DB25P318	25	M	.75	.59	.49	.35
15181	DB25S318	25	F	.79	.65	.55	.35
71706	DC37P318	37	M	.99	.79	.55	.49
78182	DC37S318	37	F	.99	.72	.49	.39



0.590" Set Back

- Long style
- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A



104977

✻Prepackaged: order in increments of 10, 100 or 1000

† **189624:** without board tabs

Part No.	Product No.	Cont.	Gender	Shell	10	100	500
15763	DB9P590PL	9	M	plastic ✻	$.19	$.17	$.15
104969	DB9P590	9	M	metal	.89	.75	.65
104977	DB9S590	9	F	metal	.89	.75	.65
104985	DA15P590	15	M	metal	.19	.15	.12
104993	DA15S590	15	F	metal	.79	.69	.49
189624	DB25P590†	25	M	metal	.75	.49	.29
105005	DB25P590	25	M	metal	.99	.89	.79
105013	DB25S590	25	F	metal	1.19	.99	.89

IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Temp range: -55°C to +120°C
- Insulation material: glass-filled polyester
- Contact material: phosphor bronze
- Terminates with standard D-type connectors

† **109225/109217:** require flat cable w/ .0625" centers

12431

Part No.	Product No.	Cont.	Gender	Shell	1	10	100
109225	MDB9P†	9	M	metal	$1.09	$.89	$.75
12503	CDB9P	9	M	plastic	1.99	1.79	1.59
109217	MDB9S†	9	F	metal	1.09	.89	.75
12520	CDB9S	9	F	plastic	1.99	1.79	1.59
117381	MDA15P	15	M	metal	1.25	.99	.59
12298	CDA15P	15	M	plastic	1.25	.99	.59
116011	MDA15S	15	F	metal	1.25	.99	.69
12319	CDA15S	15	F	plastic	1.35	1.09	.65
115983	MDB25P	25	M	metal	1.25	.99	.79
12335	CDB25P	25	M	plastic	1.39	1.19	.89
115975	MDB25S	25	F	metal	1.25	.99	.79
12431	CDB25S	25	F	plastic	1.39	1.19	.89
115991	MDC37P	37	M	metal	1.95	1.75	1.25
12466	CDC37P	37	M	plastic	2.49	2.25	1.75
116003	MDC37S	37	F	metal	1.95	1.75	1.35
12482	CDC37S	37	F	plastic	2.49	2.25	1.75

Solder-Cup Connectors

15114 Front

15114 Back

- Compatible with 24 AWG communications and 22 AWG solid cable, pg 81 * High Density

Part No.	Contacts	Gender	Shell	1	10	100	1000
15747	9	M	metal	$.45	$.35	$.29	$.19
15771	9	F	metal	.49	.39	.35	.25
15077	15HD*	M	metal	.55	.45	.35	.22
164822	15HD*	F	metal	.59	.49	.39	.25
15034	15	M	metal	.45	.35	.29	.19
15051	15	F	metal	.49	.39	.32	.19
15114	25	M	metal	.89	.79	.72	.65
15157	25	F	metal	.79	.71	.64	.58
15472	37	M	metal	.79	.65	.55	.32
15499	37	F	metal	.95	.75	.59	.35
15675	50	M	metal	1.35	1.15	.99	.85
15691	50	F	metal	1.25	.89	.73	.59

Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temp.: -65°F to +250°F * High Density

15780

15122

Part No.	Product No.	Cont.	Gender	Shell	1	10	100
111691	DB9PPCB	9	M	metal	$.39	$.32	$.22
15780	DB9SPCB	9	F	metal	.39	.32	.22
174836	HDDB15PPCB*	15	M	metal	.19	.18	.16
176760	DA15PPCB	15	M	metal	.39	.32	.22
176751	DA15SPCB	15	F	metal	.49	.44	.39
15122	DB25PPCB	25	M	metal	.59	.45	.29
15165	DB25SPCB	25	F	metal	.59	.45	.25
180021	DC37SPCB	37	F	metal	.69	.55	.45

Crimp-Type Connectors and Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: red/white plastic body; exchangeable tips
- Use 99442, pg 97 to crimp P/Ns 43377, 43369

180890

38771

43369

19094

✻Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
73189	DB9 male housing	$.39	$.32	$.25	$.15
73197	DB9 female housing	.39	.32	.25	.15
73200	DA15 male housing	.55	.49	.44	.39
73218	DA15 female housing	.65	.59	.53	.47
180881	HDDB15 male housing	.89	.69	.55	.45
180890	HDDB15 female housing	.89	.79	.72	.65
38789	DB25 male housing	.45	.35	.29	.17
38771	DB25 female housing	.45	.35	.25	.17
180048	DC37 male housing	.25	.20	.18	.16
180030	DC37 female housing	.25	.20	.18	.16
43377	Male crimp pins ✻		.06	.05	.04
43369	Female crimp pins ✻		.06	.05	.04
185421	Male crimp pins (for 180881) ✻		.05	.04	.035
185412	Female crimp pins (for 180890) ✻		.05	.04	.035
19094	Insertion/extraction tool for above pins (HT101)	2.95	2.49	1.95	1.49

4-40 Mounting Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws and Hex Nuts

108986

102795

125014

✻Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
169931	.275"L jack screw ✻	$.15	$.12	$.09	
172603	.315"L jack screw ✻	.14	.10	.07	
102816	.435"L jack screw ✻	.45	.39	.36	
108986	.515"L jack screw ✻	.45	.39	.36	
175636	.187"L hex nut ✻	.15	.13	.11	
102795	.240"L hex nut ✻	.17	.12	.08	
196293	.252"L hex nut ✻	.17	.12	.08	
125014	4-40 x 1.65"L plastic beige thumbscrew	.39	.29	.22	.13

4-40 Screw Sets

102808

16547

102808: 4-40 screw (.30"L) and retainer set
16547: 4-40 x .187" jack screw (.31"L thread), washer, lock washer and nut set

Part No.	Description	1	10	100	1000
102808	Screw/retainer set ✻	$.25	$.19	$.15	
16547	Screw/nut set ✻	.25	.19	.13	

D-Subminiature Connector Hoods

15085
Plastic

25620
Metallized

- Use with D-sub solder cup and housing style connectors

D Series: plastic hood with strain relief (gray)
MD Series: metal coated plastic hood w/ strain relief
MH Series: die-cast metal hood with strain relief
Includes: Hardware

Part No.	Product No.	Connector	1	10	100	1000
15721	DB9H	9-pin	$.45	$.39	$.36	$.32
25620	MDB9H	9-pin	.45	.35	.29	.25
147740	DB9MH	9-pin	1.15	1.03	.93	.69
15018	DA15H	15-pin	.35	.29	.22	.17
25566	MDA15H	15-pin	.45	.35	.29	.25
15085	DB25H	25-pin	.39	.35	.31	.28
25603	MDB25H	25-pin	.45	.35	.29	.25
15106	DB25MH	25-pin	1.39	1.19	.99	.79
15456	DC37H	37-pin	.55	.45	.32	.25
25611	MDC37H	37-pin	.69	.59	.52	.45
15659	DD50H	50-pin	.99	.85	.69	.55

25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.

Shown assembled

Part No.	Description	1	10	100	500
34091	25-pin, plastic dual	$.89	$.75	$.65	$.39

Part Number Color Code
New Sale Refurbished Closeout

Centronics Parallel Interface Connectors

Metal Body and Shell, Solder-Type Contacts

180072 180064 180056

- Solder eyelets accept 24 AWG wire, pg 81

SALE

Male cable plugs
- Complete with cable boot, shell and hardware

Female cable receptacles
- Can be used as panel mount
- Complete with spring latches and cable boot

42382

Part No.	Product No.	Description	1	10	50
180072	57-30140	14-contact M	$1.25	$.99	$.75
180064	56-30140	14-contact F	1.15	.99	.89
180056	57-30240	24-contact F	.69	.62	.55
42382	57-30360	36-contact M	1.79	1.59	1.49
42403	57-60360	36-contact F	.55	.47	.42
71714	5704-50	50-contact F	2.95	2.65	2.49

36-Pin Female Centronics Connector

Amphenol

Vertical PC Mounting

SALE

- Board mount
- Current rating: 1A
- Contact material: copper alloy
- Insulation resistance: 1000MΩ min. @ 500VDC
- Amphenol number: 57-20360-9 • Spring latches

Part No.	Description	1	10	100
159708	36 contact female	$.10	$.09	$.08

PCB Right Angle Centronics Interface Connectors

72151 72080

- Solder-type contacts • Space between rows: .164"
- Space between pins: 0.1" • Metal body • PC mount

Part No.	Description	1	10	100
72151	36-contact female	$2.95	$2.65	$2.39
72080	50-contact female	.75	.66	.59

IDC Centronics Connector

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73251 IDC crimping tool, right

13848

Part No.	Prod. No.	Cont.	Type	1	10	100
13848	CEN36M	36	male	$1.75	$1.49	$1.09
13821	CEN36F	36	female	1.95	1.79	1.59

SCSI-II & SCSI-III Half-Pitch IDC Connectors

139361 139070

- Connectors are high-density D-sub

Part No.	Description	1	10	50
139352	50-pin male SCSI-II	$5.95	$5.49	$4.95
139361	50-pin female SCSI-II	5.95	5.49	4.95
139061	68-pin male SCSI-III	4.95	4.49	3.95
139070	68-pin female SCSI-III	4.95	4.49	3.95

DIN Female Sockets

- Metal body
- Panel mount with solder lugs

15851

Part No.	Prod. No.	# of pins	1	10	100	500
15843	DINJ5	5	$.79	$.69	$.63	$.57
15851	DINJ6	6	.79	.65	.39	.35
15860	DINJ8	8	.85	.69	.55	.49

Right Angle DIN Female Sockets

- Set back: 0.5"
- PC mount contacts

140791/119474: Plastic/metal body
29399: Plastic body

29399

Part No.	Product No.	# of pins	1	10	100	500
140791	MDR4S	4 (mini)	$.79	$.71	$.65	$.59
119474	MDR6S	6 (mini)	.69	.55	.39	.36
29399	RD5	5	.55	.45	.29	.25

PANAVISE IDC Bench Press and Accessories

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.

27182 27174

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
27174	M505	Bench press	7.0	$179.95	$159.95
		M505 Accessories			
27182	M507	Cable cutter	0.9	$69.95	$62.95
27203	M510	Base plate	0.5	29.95	26.95

IDC Crimping Tool

- Crimping distance: 27.5mm to 6mm (with attachment)
- For complete specifications see page 98

Part No.	Product No.	1	10	25
73251	HT214	$11.95	$10.95	$9.95

Terminal D-Sub Crimping Tool

14-26 AWG

- Heavy-duty metal crimping tool w/ cutter
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 14-18 AWG and 20-22 AWG wire • Size: 7.3"L x 1.5"W

Part No.	Product No.	1	10	25	100
99442	HT202A	$8.49	$7.49	$6.95	$6.29

Telecom Splice Connectors

- Provides clean, solid, & rapid connection of wires to keep communication lines free of noise

169746 169754 169738

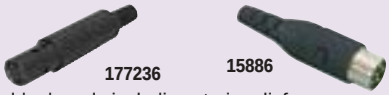
- Available to handle a wide range of conductor sizes

169754: Y-Type **169738:** T-Type

✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Color	Wire Gauge	No. of Conductors	1	10	100	1000
169746	Yellow	22–26	2 ✻	$.11	$.10	$.08	
169754	Red	19–26	3Y ✻	.19	.15	.12	
169738	Blue	24–26	3T ✻	.11	.10	.09	

DIN and Mini DIN Plugs and Receptacles



177236 15886

- Solder barrels including strain relief
- See page 81 for cable

Part No.	Pins	Type	1	10	100
142279	4	Mini plug	$.89	$.68	$.48
142261	6	Mini plug	.99	.85	.69
177244	6	Mini receptacle	.99	.85	.69
111878	8	Mini plug	.99	.85	.65
177236	8	Mini receptacle	1.09	.89	.75
15878	5	DIN plug	.55	.45	.39
180873	5	DIN receptacle	.55	.45	.39
15886	6	DIN plug	.59	.49	.43
15894	8	DIN plug	.69	.59	.49
180865	8	DIN receptacle	.49	.44	.39

Insulated Solderless Terminals

- Insulation thickness: .030"
- Funnel ramp entry • Temperature to 105°C
- Use with crimping tool P/N 72995, below
- **Prepackaged: please order in increments of 10, 100 or 1000**

Ring Solderless

Part No.	Color	Wire Gauge	Stud	10	100	1000
103683	Red	16-22	#6	$.09	$.06	$.04

Spade Solderless

Part No.	Color	Wire Gauge	Stud	10	100	1000
103587	Red	16-22	#6	$.10	$.06	$.04
103595	Blue	14-16	#8	.10	.06	.035

Disconnect Solderless

Part No.	Descrip.	Color	Gauge	Blade	10	100	1000
106921	Female	Red	16-22	.187"	$.12	$.07	$.04
103667	Female	Red	16-22	.25"	.12	.07	.04
109111	Female†	Red	16-22	.25"	.14	.09	.045

† **109111 includes hood**

171-Pc. Solderless Terminal Kit

- Clear, hinged plastic box
- Use crimping tool P/N 72995, below

170 Terminals and Connectors!

Qty.	Description	Wire Gauge	Blade Size	Qty.	Description	Wire Gauge	Blade Size
10	Male spade	16-22	1/4"	10	Ring term.	14-16	#10
10	Male spade	14-16	1/4"	5	Ring term.	10-12	#10
10	Fem. spade	16-22	1/4"	5	Ring term.	10-12	#14
10	Fem. spade	14-16	1/4"	10	Spade term.	16-22	#6
10	Ring term.	16-22	#6	10	Spade term.	16-22	#8
10	Ring term.	16-22	#8	10	Spade term.	14-16	#10
10	Ring term.	16-14	#10	10	Butt connec.	16-22	–
15	Ring term.	14-16	#6	10	Butt connec.	14-16	–
10	Ring term.	14-16	#8	5	Butt connec.	10-12	–

Part No.	Description	1	10	25
10989	Terminal kit	$10.49	$8.95	$6.95

Terminal Wire Crimping Tool

- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W
- Weight: 0.8 lbs.

Part No.	Product No.	1	10	25
72995	HT303	$15.95	$14.49	$12.95

LAN Tester with Remote

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc. Test cables installed from a distance either on wall plate or patch panel.

- Check for cable continuity, miswiring, open, short, grounding and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM and BNC F-F
- On-board connectors: 2 RJ45F (tester) and 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)
- Weight: 0.7 lbs. • One-year warranty

Includes: Manual and test cables

Part No.	Description	1	5
145710	LanTest cable tester	**$79.95**	**$71.95**

Network Cable Tester/Locator

	Range:
50Ω/75Ω Coax	4' to 984'
100Ω twisted pair:	
with RJ45	4' to 328'
with alligator clips	4' to 984'

- Detects opens, shorts, & cable distance
- 0.7" digit height
- Measures distance to the open or short
- Tests 50Ω & 75Ω coaxial cable and 100Ω UTP shielded or unshielded cable
- Distance resolution: 1 ft.
- Accuracy: open ±(7% +4 ft.); short ±(10% +4 ft.)
- Size: 7.0"L x 2.8"W x 1.2"H • Wt.: 1.5 lbs.

BelMERIT

Includes: Manual, alligator clip to BNC adapter (7"L), carrying case and 4 AA alkaline batteries

Part No.	Description	1	10
171352	Network cable tester	**$169.95**	**$152.95**

UTP Ethernet Cable Tester

- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests
- Size 4.5"L x 2.5"W x 1.3"H

Requires: 9V battery (recommend P/N 151095, pg 58)

Includes: Zipper case

Part No.	Description	1	10
115895	Network Cat. 5 tester	**$29.95**	**$26.95**

Telephone Line Analyzer Tester

- Connects between telephone and wall jack
- Line test: verifies DC voltage to phone
- Loop test: verifies line condition from central office to jack
- Ring and cord tests • Weight: 0.8 lbs.
- Size: 4.4"L x 2.5"W x 1.8"H • One-year warranty

Part No.	Description	1	10
119378	Line analyzer kit	**$27.95**	**$24.95**

Universal PC Cable Tester

Multimedia, USB, SCSI

Control Panel & SCSI Tester

Interface Unit

- Complete testing interface for PC, multimedia, and USB cables
- Tested ports: 2 DB9 M-F; 2 HDDB15 M-F; 2 DB25 M-F; 2 Centronics 36-pin M-F; two 4-pin mini DIN F; two 5-pin DIN M-F; two 6-pin miniDIN M-F; 2 RCA F jacks; 2 RJ45 8P8C modular jacks; 2 audio jacks; 2 USB-A F; two 50-pin half pitch F; and two 68-pin half pitch F connectors

Requires: 9V battery (recommend P/N 151095, pg 58) or 9VDC adapter (recommend P/N 100845, pg 72)

Includes: Manual, 5-pin DIN M-M adapter cable, 6-pin mini DIN M-M adapter cable & two 40-pin IDC cables

Part No.	Description	Wt. (lbs.)	1	10
175513	Cable tester	5.1	**$449.95**	**$399.95**

PC Cable-Check™ Tester

Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11 and RJ45 telephone plugs. RG58, RG59 and RG62 BNC connections with pass or fail diagnosis clearly shown on LED readout.

- Size: 9.3"L x 5.5"W x 1.8"H
- Weight: 1.7 lbs.

Paladin Tools

Includes: Battery and manual

Part No.	Description	1	10
123916	PC cable-check™	**$149.95**	**$134.95**

Fiber Optic Duplex Cable Assemblies

Fig. 1 Fig. 2 Fig. 3

- Multimode • 62.5 / 125 micron fiber size
- Cable color: orange

Insertion Loss (dB) Table:

Part No.	A1	A2	B1	B2
175345	0.13	0.11	0.07	0.04
175353	0.21	0.10	0.23	0.07
175361	0.08	0.08	0.12	0.12
175370	0.15	0.04	0.11	0.02

Part No.	Desc.	Fig.	Length	1	10	100
175345	ST-ST	1	2M (6'6")	**$27.95**	**$25.25**	**$22.65**
175353	ST-SC	2	1M (3'3")	**29.95**	**26.95**	**24.29**
175361	ST-SC	2	2M (6'6")	**35.95**	**32.35**	**28.95**
175370	SC-SC	3	1M (3'3")	**32.95**	**29.95**	**26.95**

10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')

Part No.	Description	1	10
171272	10' fiber optic cable	**$6.95**	**$6.25**

Fiber Optic Infrared Detectors

169990 169981

169973

- Mates with standard 1000µm core jacketed plastic fiber cable
- Internal micro-lens for efficient coupling
- Inexpensive plastic connector housing
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Compatible with LED emitters, below

169990: TTL compatible output
- Peak wavelength sensitivity: 800nm

169981: TTL open-collector output
- Peak wavelength sensitivity: 850nm

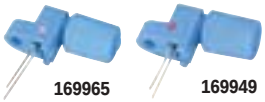
169973: NPN Phototransistor • V_{CEO}: 30V, I_C: 50mA
- Peak wavelength sensitivity: 870nm

Part No.	Description	Color Dot	1	10
169990	Infrared detector D95T	yellow	**$5.95**	**$5.35**
169981	Infrared detector D96	white ..	**5.95**	**5.35**
169973	Phototransistor D92	white ..	**3.95**	**3.55**

Fiber Optic LED Emitters

Infrared and Visible Light

169957



169965 169949

SALE

- Mates with standard 1000µm corejacketed plastic fiber cable (recommend P/N 171272,below)
- Internal micro-lens for efficient coupling
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Excellent linearity
- Compatible with fiber optic photo detectors, above

169957:
- Peak wavelength: 950nm, Vf=1.7V max @ 50mA

169949 & 169965:
- Peak wavelength: 660nm, Vf=1.8V max @ 50mA

Part No.	Description	Color Dot	1	10
169957	Fiber optic LED E91A	blue ...	**$3.95**	**$3.55**
169965	Fiber optic LED E96	pink	**4.95**	**4.49**
169949	Fiber optic LED E97	red	**5.95**	**5.39**

Fiber Optic Cable-Cutting Tool Kit

Kit contains fiber optic stripper, 25W hot knife professional fiber cutter, water dispenser, rubber pad, 600 grit and 3µm polishing film, replacement blades, ST-connector fiber polishing puck, rugged storage container and instruction booklet.

- Weight: 2.5 lbs.

Part No.	Description	1	10
170034	Fiber Optic Tool Kit	**$149.95**	**$134.95**

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Part Number Color Code
New Sale Refurbished Closeout

RJ-Type Couplers and Adapters

Fig. 1
W: 1.5"
H: 0.9"
D: 0.7"

Fig. 2
W: 1.1"
H: 0.8"

Fig. 3
W: 1.7"
H: 1.0"
D: 0.9"

Style 1 Reverse wiring for telephone systems

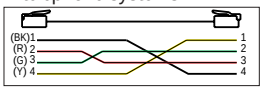
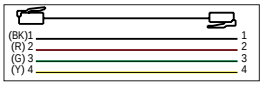


Fig. 4
W: 1.0"
H: 1.0"
D: 2.0"

Cat 5 Coupler!

Style 2 Straight wiring for networking/printer sharing



Part No.	Description	Fig.	1	10	100
75248	6P4C female "T" adapter, Style 1. Provides 2 jacks from 1 cable. Female jack (6P4C), 2 female modular receptacles (6P4C) RJ11	2	$1.49	$1.34	$1.19
72207	6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11	2	.79	.69	.55
71757	6P6C modular coupler, Style 1, RJ11	1	.85	.65	.49
135087	6P6C modular coupler, Style 2, RJ11	1	.85	.65	.49
181091	6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug(6P6C), 2 female modular receptacles (6P6C) RJ11	2	.45	.37	.33
118501	8P8C modular coupler, Style 1, RJ45	1	1.95	1.79	1.59
135079	8P8C modular coupler, Style 2, RJ45	1	1.15	.99	.89
172814	8P8C modular coupler, Style 1 (for Cat. 5) RJ45	4	6.95	6.25	5.59
153023	8P8C modular coupler, Style 2 (for Cat. 5) RJ45	3	6.95	6.25	5.59

Surface Mount RJ-Type Jacks and Wall Plates

- Color: beige
  W/E = Western Electric type no.

Fig. 1 (72311)
W: 2.8"
H: 4.5"

Fig. 2 (71651)
W: 2.0"
H: 2.2"
D: 0.9"

Part No.	Description	W/E	Fig.	1	10	100
72311	6P6C & 8P8C double wall jack plate w/ jacks	—	1	$2.19	$1.95	$1.79
103464	6P4C adhesive jack RJ11	625A-4	2	1.39	1.19	.99
71984	6P6C adhesive jack RJ11	625BS-6	2	1.39	1.19	.99
71651	8P8C adhesive jack RJ45	635	2	1.59	1.35	1.19

Surface Mount RJ45 Jacks

Category 5, Unshielded

SALE

- RJ45
- 8P8C
- 100MHz • Color: beige
- Size: 2.6"L x 3.2"W x 1.2"H

176073

176081

Part No.	Description	1	10	100
176073	Single jack	$5.79	$5.19	$4.67
176081	Dual jack	9.95	8.95	7.95

Modular Plugs

SALE

103491

79290

79273

79281

119343

P = No. of positions
C = No. of contacts
W/E = Western Electric type number

180646

116610

✻ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	W/E	1	10	100	1000
103491	4P4C (handset)	616	✻	$.11	$.08	$.06
79290	6P4C (RJ11)	623	✻	.12	.11	.08
79273	6P6C (RJ11)	623	✻	.16	.14	.13
79281	8P8C (RJ45)	641	✻	.21	.19	.15
119343	8P8C (RJ45) unshielded (for solid wire)	—	.43	.39	.34	.29
116610	8P8C (RJ45) shielded	—	.99	.85	.69	.55
116601	8P8C (RJ45) shielded (for solid wire)	—	.99	.85	.69	.55
180646	10P10C (for stranded wire)	—	.89	.75	.69	.55

Modular Jacks

115128

151765

105945

115836

124038

115844

- PC mount
- Voltage rating: 150 volts AC max.
- Contact curr. rating: 1.5 amp max. @ 25°C
- Durability: 750 mating cycles

167290

182924

Part No.	Description	W/E	1	10	100
115128	4P4C (handset)	—	$.69	$.49	$.35
151765	6P4C (RJ11) side flange	AMP	.52	.45	.35
105945	6P4C (RJ11) top flange	623	.59	.49	.39
115836	6P6C (RJ11) side flange	—	.65	.58	.52
124038	6P6C (RJ11) 6" leads	—	.95	.75	.55
115844	8P8C (RJ45)	641	.69	.62	.55
167290	8P8C (RJ45) top flange	—	.29	.26	.23
182924	8P8C (RJ45) shielded	—	.95	.75	.55

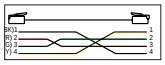
Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network, 4 wire
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

Style 1 – Reverse wiring for telephone systems
Style 2 – Straight wiring for networking/ printer sharing
195733: Black

Low Cost Data/ Phone Cables

Style 1



Style 2

Part No.	Conn. Style	Type	Length	Pricing 1	10	100
195733	1	RJ11-6P2C	7ft.	$.79	$.69	$.59
189940	1	RJ11-6P2C	7ft.	.99	.89	.79
189931	1	RJ11-6P4C	1ft.	.69	.59	.49
196226	1	RJ11-6P4C	7ft.	1.09	.89	.75
115553	2	RJ11-6P4C	7ft.	1.09	.89	.75
115545	1	RJ11-6P4C	25ft.	1.75	1.57	1.39
115588	1	RJ11-6P6C	7ft.	1.09	.89	.75
115617	2	RJ11-6P6C	7ft.	1.49	1.25	.99
115676	2	RJ45-8P8C	7ft.	1.49	1.25	.99
115684	2	RJ45-8P8C	14ft.	2.95	2.49	1.95

BNC/F-Type/Fiber Optic Jacks

195645

195653

195661

- Removable jacks used in wall plates (see below)
- Clip on for easy installation on wall plates
- Color: ivory

Part No.	Description	1	10	100
195645	F-Type female to female	$1.95	$1.75	$1.29
195653	BNC female to female	4.95	4.45	3.95
195661	ST Fiberoptic	7.95	6.95	5.95

RJ45 Modular Jacks

Punchdown Type

- Removable jacks used in wall plates (clip on)
- CAT5E classification
- Punchdown type wiring connections w/ color coding
- Size: 0.57"W x 0.63"H x 1.23"D • 8P8C

195602

195611

Part No.	Color	1	10	100
195590	Red	$4.95	$4.45	$3.95
195602	Yellow	4.95	4.45	3.95
195611	Green	4.95	4.45	3.95
195629	Black	4.95	4.45	3.95
195637	Ivory	4.95	4.45	3.95

RJ45 Wall Plates

195549

195557

195565

195573

195581

- Color: ivory • Size: 2.8"W x 4.5"H

Part No.	No. of ports	1	10	100
195549	1	$1.49	$1.25	$.99
195557	2	1.49	1.25	.99
195565	3	1.49	1.25	.99
195573	4	1.49	1.25	.99
195581	6	1.49	1.25	.99

RS232-to-RJ11/RJ45 Modular Jack Adapters

66181 66237

Change your RS232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

Part No.	Prod. No.	Description	1	10	100
66181	G9P6	DB9 M to RJ11(6P6C)	$2.19	$1.95	$1.75
66190	G9P8	DB9 M to RJ45(8P8C)	1.95	1.75	1.49
114737	G9S4	DB9 F to RJ11(6P4C)	1.95	1.75	1.49
66202	G9S6	DB9 F to RJ11(6P6C)	2.19	1.95	1.75
66211	G9S8	DB9 F to RJ45(8P8C)	2.49	2.25	1.95
66229	G25P6	DB25 M to RJ11(6P6C)	2.19	1.95	1.75
66237	G25P8	DB25 M to RJ45(8P8C)	2.49	2.25	1.95
66245	G25S6	DB25 F to RJ11(6P6C)	2.25	1.95	1.75
66253	G25S8	DB25 F to RJ45(8P8C)	2.49	2.25	1.95

Modular Data Network Cables

Category 5 (100MHz)

115721 w/o Boot | 124804 w/ Boot | 124741 | 124863 | 124687

- 4 pair • 24 AWG (7 x 43) stranded
- Style 2 wiring (pg 158) • UTP
- Color code for easy wire tracing
- High-flexibility • Prevent "snags" • 8P8C
- Achieve optimum system performance

See page 81 for Bulk Cable

† No Boot

Part No.	Description	Color	1	10	100
115713	3ft. cable RJ45	Gray†	$2.95	$2.65	$2.39
115721	7ft. cable RJ45	Gray†	4.29	3.75	3.29
175273	7ft. cable RJ45	Gray	3.49	2.95	2.36
115730	15ft. cable RJ45	Gray†	5.49	4.95	4.49
115748	25ft. cable RJ45	Gray†	7.49	6.75	5.49
181059	50ft. cable RJ45	Gray	9.95	8.95	7.95
124724	3ft. cable RJ45	Red	2.95	2.25	1.95
124732	7ft. cable RJ45	Red	3.95	3.49	2.95
124741	15ft. cable RJ45	Red	4.95	4.49	3.95
170165	25ft. cable RJ45	Red	6.95	6.25	4.95
124847	3ft. cable RJ45	Black	2.95	2.49	1.75
192701	6ft. cable RJ45	Black†	3.49	2.95	2.49
124855	7ft. cable RJ45	Black	3.95	3.55	3.19
124863	15ft. cable RJ45	Black	5.25	4.75	4.25
170173	25ft. cable RJ45	Black	6.95	6.25	4.95
124804	3ft. cable RJ45	Blue	3.29	2.79	2.19
124812	7ft. cable RJ45	Blue	4.49	3.95	3.19
124821	15ft. cable RJ45	Blue	4.95	4.25	3.95
170190	25ft. cable RJ45	Blue	7.49	6.95	6.25
124687	3ft. cable RJ45	Yellow	3.49	2.95	2.49
124695	7ft. cable RJ45	Yellow	3.95	3.49	2.75
124708	15ft. cable RJ45	Yellow	4.49	3.95	3.25
170299	25ft. cable RJ45	Yellow	6.95	6.25	4.95

Category 5 (350MHz)

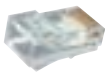
Part No.	Description	Color	1	10	100
168292	3ft. cable RJ45	Gray	$2.95	$2.65	$2.39
168305	7ft. cable RJ45	Gray	4.95	4.49	3.95
168313	15ft. cable RJ45	Gray	5.95	5.35	4.79
168321	25ft. cable RJ45	Gray	7.95	6.95	6.25

Cat 5 Crossover Cable

- Connect 2 PCs w/o a hub
- 24AWG (7 x 43) stranded
- Style 2 wiring (pg 158)
- UTP • 8P8C • 4-pair
- Strain relief RJ45 connectors

Part No.	Description	1	10	100
169261	10' cable RJ45, gray	$6.95	$6.25	$5.59

EZ RJ45 Connector



Strip the wire & insert into the plug and pull out the wire on the other side. This ensures correct conductor order & uniformity in crimping. No wire bar & no wasted cable.

- For solid or stranded wire
- Use standard modular crimping tool • 8P8C plug

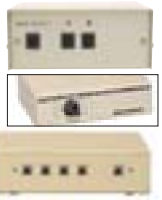
Part No.	Product No.	1	10	100	250
158115	RJ45 (8P8C)	$1.75	$1.49	$1.25	$.99

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

Fax/Modem/Telephone-to-PC

RJ11 6P6C Female



79142

180161

- Connects fax, modem, or telephone to 2 or 4 PCs

79142: 2-PC switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

180161: 4-PC switch box
- Size: 8.0"L x 6.0"W x 2.2"H
- Weight: 2.0 lbs.

Part No.	Description	1	10
79142	2-PC RJ11 switch box	$11.95	$10.95
180161	4-PC RJ11 switch box	15.95	14.49

Network Devices-to-Server Switch Box

RJ45 8P8C Female

- Connects network devices to 4 servers
- 5 RJ45 8P8C females
- Size: 8.0"L x 6.1"W x 2.2"H • Weight: 2.0 lbs.

Part No.	Description	1	10
180099	4-server RJ45 switch box	$14.95	$13.49

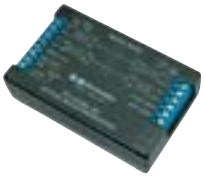
KVM Two Computer System Switch Box

Allows one user with one keyboard, mouse and monitor to access two PS/2 systems.

- Switch between computers manually or via keyboard hot-keys
- Auto scan feature switches between computers
- Small design of switch increases work space
- Input connectors (from PC to switch box): 6-pin mini DIN female (PS/2) for keyboard and mouse, HDDB15 male for monitor
- Output connectors (from switch box to user): 6-pin mini DIN female for keyboard and mouse; HDDB15 female for monitors
- Size: 6.7"L x 3.8"W x 1.4"H • Weight: 0.9 lbs.

Part No.	Description	1	10
190916	2 computer switch box	$69.95	$62.95

RS-422/RS-485 Optically Isolated Repeater



Optically isolates and protects RS-485 equipment while acting as a signal repeater to increase the number of possible nodes to more than 32. Converts from 4-wire RS-422 to 2-wire RS-485. A set of jumpers allows operation in either half-duplex or full-duplex mode for a versatile connection to virtually any RS-422/RS-485 system.

NEW

- Isolation: 2,000 volts RMS for 1 min. optical isolation of data lines and ground
- Surge suppression: 6.5kV, working peak voltage, bidirectional
- Data rate: up to 460.8kbps
- Typical applications: RS485 to RS485 optical isolator; RS485 repeater; 4-wire to 2-wire converter; RS485 surge suppressor

Includes: 12VDC @ 300mA power supply

Part No.	Description	1	10
198061	RS-422/RS-485 Repeater	$138.95	$124.95

Parallel Printer-to-PC Switch Boxes

DB25 Female

20095

155512

20124

- Connects 2 or 4 PCs to one printer

20095: 2-PC switch box
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 1.3 lbs.

155512: 2-PC switch box
- Size: 7.2"L x 4.9"W x 2.5"H
- Weight: 2.3 lbs.

Includes: DB25 M-M cable

20124: 4-PC switch box
- Size: 6.0"L x 4.0"W x 2.4"H
- Weight: 1.5 lbs.

Part No.	Description	1	10
20095	2 PC switch box	$8.95	$7.95
155512	2 PC switch box	5.95	4.95
20124	4 PC switch box	14.95	13.49

Parallel Printer-to-PC Switch Box

Two DB25 and One 36-Pin Centronics Female

SALE

- Connects two PCs to one printer
- Size: 6.0"L x 5.3"W x 2.0"H
- Weight: 1.4 lbs.

Part No.	Description	1	10
73322	2-PC switch box	$11.95	$9.95

Bidirectional Parallel Printer-to-PC Centronics Switch Boxes

36-Pin Centronics Female

SALE

20132

20141

- Connects multiple PCs to multiple printers
- All pins switched
- Full shielding meets FCC requirements
- Gold plated connector pins
- Long-life operation
- Metal construction

20132: 2-way switch box
- 2 PCs to 1 printer or 1 PC to 2 printers
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 1.4 lbs.

20141: 3-way switch box
- 3 PCs to 1 printer or 1 PC to 3 printers
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 2.7 lbs

SALE

Part No.	Description	1	10
20132	2-way switch box	$3.29	$2.95
20141	3-way switch box	10.89	9.78

Pocket-Sized Parallel Printer-to-PC Switch Box

SALE

Connects two computers to one printer. Compatible with both bidirectional and non-bidirectional printers.

- Switchable setting for form feed and time-out
- Two LEDs to indicate link status
- Connectors: 2 DB25 female input connectors and 1 DB25 female output connector
- Size: 3.3"L x 2.5"W x 0.9"H

Requires: 9VDC @ 500mA power supply (recommended P/N 100853, pg 72)

Part No.	Product No.	1	10	25
172662	2-to-1 printer switch	$.69	$.65	$.61

Part Number Color Code
New Sale Refurbished Closeout

2-Way & 4-Way Monitor/Keyboard/Mouse-to-PC Switch Boxes

HDDB15/5-Pin DIN/DB9M

132249

134017

- Allows 2 or 4 users to share one PC system
- Internal diodes maintain keyboard in powered state when switching between systems
- Each user may need 2 or 4 sets of the following cables: P/N 66173, DB15HD M-M for monitor; P/N 114913, 5-pin DIN M-M for keyboard; P/N 132345, DB9 F-F for serial mouse (cables, pgs 163 & 164)
- Size: 7.5"L x 5.3"W x 2.8"H

Part No.	Description	Wt. (lbs.)	1	10
132249	2-user switch box	1.6	$17.95	$15.95
134017	4-user switch box	2.3	21.95	19.95

Keyboard/Mouse-to-PC Switch Box

SALE

DB9/5-Pin DIN Female

- Connects 4 keyboards and/or serial mice to one PC
- Size: 6.0"L x 4.7"W x 2.5"H • Weight: 1.5 lbs.

Part No.	Description	1	10
183409	4-way switch box	$10.75	$9.63

Keyboard/Monitor-to-PC Switch Boxes

HDDB15/5-Pin DIN Female

114155

114163

- Size: 6.0"L x 4.0"W x 2.3"H
- Weight: 1.3 lbs.

114155: 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state

114163: 2-way switch box
- For 1 PC connected to 2 keyboards and 2 monitors

Part No.	Description	1	10
114155	2 computers	$14.95	$13.49
114163	1 computer	14.95	13.49

Keyboard/Monitor-to-PC Switch Box

HDDB15/6-Pin Mini DIN Female

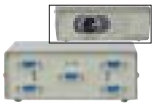
- Connects 2 monitors and 2 keyboards to a PC
- Size: 6.0"L x 4.5"W x 2.6"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
79177	2-way switch box	$14.95	$13.49

Monitor-to-PC Switch Boxes

DB9 Female

79126


183417

- Connects 2 or 4 serial or TTL monitors to a PC

79126: 2-monitor switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

183417: 4-monitor switch box
- Size: 6.1"L x 4.0"W x 2.2"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
79126	2-monitor switch box	$9.95	$8.95
183417	4-monitor switch box	19.95	17.95

SVGA 4-Channel Monitor Splitter

Duplicate a video signal from one source to 4 monitors up to 210 feet.

- Suitable for SVGA, VGA and multisync monitors
- HDDB15 female connectors on box
- Slide switch for video signal gain control
- Daisy chainable • One-year warranty
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.

Includes: Power adapter 9VDC @ 130mA

Part No.	Description	1	10
133866	4-channel monitor splitter	$68.95	$61.95

Monitor/Mouse/Keyboard Cables

141284

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, & DB9 male/female for mouse

Part No.	Description	Wt. (lbs.)	1	10
141284	6' cable	1.6	$22.95	$19.95
141276	32' cable	4.8	39.95	35.95

SVGA 2-Channel Monitor Splitter

Duplicate a video signal from one source to 2 monitors up to 245 feet away.

- Suitable for SVGA, VGA and multisync monitors
- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- LED power indicator
- Size: 6.6"L 3.3"W x 1.1"H • Weight: 1.4 lbs.

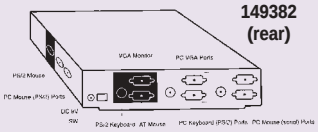
Includes: 9VDC @ 500mA power adapter and manual

Part No.	Description	1	10
176866	2-channel monitor splitter	$49.95	$44.95

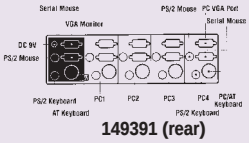
Up to 4 Computers on 1 Keyboard/Mouse/Monitor

Supports auto PC boot-up

149382 (front)


149382 (rear)

149391 (front)


149391 (rear)

- Selects any computer by hot keys or switch
- Serial mouse, PS/2 mouse & keyboard emulation for automatic PC boot up
- Three stage cascadable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically
- One-year warranty
- Size (149382): 9.0"L x 6.0"W x 2.0"H
  (149391): 10.0"L x 7.0"W x 3.0"H

Includes: Manual & power supply (9VDC @ 600mA)

Part No.	Description	Wt. (lbs.)	1	10
149382	2 computers	4.0	$149.95	$129.95
149391	4 computers	7.1	229.95	209.95

4-Port RS-232 Smart Switch/Port Combiner

Often called "line sharers or "code activated switches" this smart switch can be used to connect one RS-232 port to four or more different serial devices. This switch can be controlled in two ways: 1) referred to as "smart switch mode", the switch is controlled by sending a preamble (usually three characters) to the master port. One character of the preamble code is user programmable by internal switch setting.; 2) referred to as "port combiner mode", a slave port can gain access to the master port by asserting a handshake line (RTS for DTE slave ports, CTE for DCE slave ports).

NEW

- Supports TD, RD, RTS, and CTS
- Baud rates from 1200 to 115.2kbps (internal switch selectable)
- Master port connector: DB25 female
- Slave port connector: 4 each DB9 female
- Size: 4.8"L x 2.8"W x 0.9"H

Requires: 12VDC @ 100mA power supply (recommend P/N 100095, pg 72)

Part No.	Description	1	10
198070	Switch/port combiner	$148.95	$133.95

Serial Printer-to-PC Automatic Switch Boxes

For DB25 RS232 Printers

185025

185033

185041

SALE

- Non-powered
- Cable distance: 15m (45 ft.)
- Auto and manual mode selectable
- 0 to 90 secs. time out selectable
- DB25-pin male and DB25-pin female connectors
- LED indicator for status

185025: 2-PC switch box
- Size: 3.5"L x 3.0"W x 1.0"H
- Weight: 0.4 lbs.

185033: 4-PC switch box
- Size: 6.0"L x 3.0"W x 0.7"H
- Weight: 0.5 lbs.

185041: 8-PC switch box
- Size: 10.0"L x 7.0"W x 3.0"H
- Weight: 6.0 lbs.

Part No.	Product No.	Description	1	10
185025	AS-251S	2-PC	$5.29	$4.75
185033	AS-451S	4-PC	6.85	6.16
185041	AS-811S	8-PC	8.75	7.85

Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2 • Baud rate: 300 to 38,400bps
- Size: 4.0"L x 2.5"W x 1.0"H • Weight: 0.8 lbs.
- One-year warranty

Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935	Bi-converter	$49.95	$44.95	$39.95

4-to-1 Parallel Printer Sharer

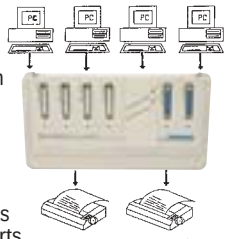
- Up to 4 computers sharing 1 printer
- Selectable automatic and manual modes
- Transparent to user
- Interfaces: 4 DB25 female input ports, 1 DB25 female output port
- Non-powered (passive)
- Requires AC adapter (recommend P/N 100853, pg 72) • One-year warranty
- Size: 8.8"L x 6.3"W x 2.3"H • Weight: 3.7 lbs.

ATEN SALE

Includes: Manual

Part No.	Description	1	10
76945	Parallel switch box	$6.15	$5.50

4-In/2-Out Parallel Printer-to-PC Buffer



- Connects 4 computers to 2 printers
- 256k byte memory
- Dynamic buffer allocation
- Auto form feed/pause at file end (enable/disable)
- 2 stage daisy chain expandability
- Interface: 4 DB25 female input ports, 2 DB25 female output ports
- Configuration saved to EEPROM
- Size: 10.5"L x 5.8"W x 1.3"H
- Weight: 3.9 lbs. • One-year warranty

SALE

Includes: AC adapter and manual

Part No.	Description	1	10
76937	4-in/2-out parallel buffer	$34.25	$30.85

8 Port PC-to-Printer Auto Switcher

SALE

- Connects 8 PCs to 1 parallel printer
- 8-port first-come, first-serve auto switch
- Auto or manual switch selectable on input port
- 5 to 60 second time out selectable • Auto form feed selectable
- LED indicators for port selection, printer ready, and manual mode
- Input and output connectors: DB25 female
- Size: 10.0"L x 7.1"W x 3.0"H • Weight: 6.1 lbs.

Includes: Manual and 9VDC @ 300mA AC adapter

Part No.	Description	1	10
183388	8-port parallel switcher	$10.59	$9.53

4/2 Automatic Printer Switches

177421

SALE

177404

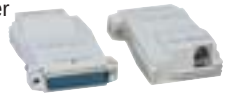
- Connects up to 4 PCs to 1 printer or 4 printers to 1 PC
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user

177421: bidirectional; 3.5" software included; 5 DB25 female connectors
177412: 5 DB25 female connectors
177404: 3 DB25 female connectors

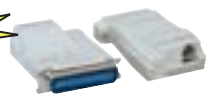
ATEN

Part No.	Description	1	10	25
177421	1 to 4 or 4 to 1	$7.75	$6.96	$6.26
177412	4 to 1 printer	6.49	5.82	5.23
177404	2 to 1 printer	9.95	7.61	6.36

ATEN Printer Port Extenders



183337



183329

SALE

- 4-wire phone line transfer of parallel printer data
- Maximum distance: 1300' (396 meters)
- Maximum data transfer speed: 21kb/sec.
- Non-powered
- Compact
- Weight: 0.6 lbs.

183337:
- Transmitter & receiver – DB25M & RJ11 (6P4C) jack
- Size (transmitter & receiver): 3.0"L x 1.9"W x 0.9"H

183329:
- Transmitter: DB25M and RJ11 (6P4C) jack
- Receiver: 36-pin Centronics male and RJ11 (6P6C) jack
- Size (transmitter): 3.1"L x 1.9"W x 0.9"H
- Size (receiver): 2.6"L x 2.1"W x 0.9"H

Includes: 25 ft. RJ11 cable

Part No.	Description	1	10
183337	Printer port (DB25M)	$49.95	$35.95
183329	Printer port (Cent. 36M)	49.95	35.95

4-in/2-out Parallel Switcher

SALE

- Connects 4 PCs to 2 parallel printers
- 4-in/2-out, first-come first-serve auto switch
- Outputs operate simultaneously
- 100kb/sec. data throughput
- Supports flexible broadcast modes
- 5/10/25/60 seconds time out & form feed selectable
- Easy to use front panel button operation
- Input and output connector: DB25 female
- Includes user's manual, 3.5" disk; and 9VDC @ 600mA AC adapter
- Size: 10.7"L x 5.7"W x 1.5"H • Weight: 3.1 lbs.

Part No.	Description	1	10
183370	4-in/2-out parallel switcher	$9.95	$8.95

Reversible Parallel Printer Switch

2 computers to 1 printer, or 1 computer to 2 printers

- Switchable via software or switch
- Supports IEEE 1284 nibble mode
- First-come, first-served transfer
- Windows®/DOS compatible
- AC adapter (not included – recommend P/N 100853, pg 72)
- Non-powered (passive) • 3 DB25-F connectors
- One-year warranty • Size: 4.0"L x 3.3"W

ATEN

Includes: Software and manual

Part No.	Description	1	10
127221	1st come, 1st serve transfer	$24.95	$22.49

IEEE-488 to Centronics Parallel Printer Converter

- Connects an IEEE-488 device to a parallel printer
- IEEE-488 24-pin female input connector
- Centronics 36-pin male output connector
- DIP switch configurable to 31 IEEE-488 addresses
- Size: 4.0"L x 2.5"W x 1.0"H
- Weight: 0.9 lbs. • One-year warranty

Includes: 9VDC @ 300mA wall transformer

Part No.	Description	1	10
122964	IEEE to Centronics convtr.	$54.95	$49.45

Scan Jet 5100C Color Scanner

- 36-bit color image processor
- 600dpi hardware super sampling; 1200 dpi enhanced
- 6ms/line normal exposure rates; 2ms/line fast exposure rate
- One pass color flat bed scanner
- 12% to 400% scaling at 300 dpi resolution
- HP intelligent scanning technology: dual image scanning, automatic page decomposition, automatic raster to vector version for black and white line art images
- Maximum document size: 8.5" x 11.7"
- Input power: 120–240VAC @ 47-63Hz
- Size: 19.1"L x 12.0"W x 4.9"H • Weight: 12.5 lbs.
- Factory refurbished

System requirements: 486 or better; Windows® 95; 16MB of RAM or more; VGA monitor (256 colors) or greater; and CD-ROM drive

Includes: Manual and software

Part No.	Description	Price
181956	ScanJet 5100 C	$69.95

Scan Jet 6200C Color Scanner

- 36-bit color image processor
- Resolution: 1200dpi hardware sampling
- Scanner type: Flatbed, one pass color & monochrome
- Input modes: front panel scan button, or from software via TWAIN
- Scan speeds: 3, 4, 5, or 6 ms/line (depending on image type and resolution)
- Scaling: unlimited • Factory refurbished
- Maximum paper size: 8.5" x 11"
- Interface: USB (SCSI capable but requires cable and controller card) • Multiple file formats
- Size: 19.6"D x 12.3"W x 4.7"H • Weight: 12.8 lbs.

System requirements: PC with Pentium® (586 or better), 2X CD-ROM, Windows® 95 or better operating system; 16MB of RAM; 40MB hard disk space, VGA monitor, and USB port

Part No.	Description	Price
184794	ScanJet 6200C	$99.95

Series 370 Printer, Scanner and Copier

181948

Printer
- 600 x 300 dpi (B&W)
- Letter, legal, A4, executive size media
- Plain paper, inkjet paper, transparencies, envelope media type
- 3 ppm (pages per minute)

Scanner
- OCR software • 300dpi resolution

Copier
- 300 dpi resolution, 8-bit grayscale
- 50 seconds per page • Up to 99 copies
- Reduction of up to 70% of its original size
- Factory refurbished
- Printer cartridges – not included

SALE

Includes: Manual and software

Part No.	Description	Price
181948	ScanJet 6200C	$63.95

Part Number Color Code
New Sale Refurbished Closeout

IEEE-1284 Parallel & Serial Cables for High Speed

The IEEE-1284 is the standard in high speed printing. Compatible w/ bi-directional communication data flow resulting in speeds up to 10 times faster than conventional applications.

130067

- Double shielded with 28 AWG stranded twisted pair inner conductors
- Molded shells, PVC plastic
- Color: beige (P/N 130067/168233); black (P/N 161630); gray (P/N 172304) • Weight: 0.6 lbs.

Part No.	Description	1	10
130067	6' DB25 M-Cent. parallel 36M	$11.95	$10.95
172304	6' DB25 M-micro Cent. 36M	12.95	11.95
168233	6' DB25 M-F parallel cable	12.95	11.95
161630	10' DB25 M-M serial cable	14.95	13.49

Fiber Optic Duplex Cable Assemblies

Fig. 1 Fig. 2 Fig. 3

- Multimode • 62.5 / 125 micron fiber size
- Cable color: orange
- For more Fiber Optic products see pg 157

SALE

Insertion Loss (dB) Table:

Part No.	A1	A2	B1	B2
175345	0.13	0.11	0.07	0.04
175353	0.21	0.10	0.23	0.07
175361	0.08	0.08	0.12	0.12
175370	0.15	0.04	0.11	0.02

Part No.	Desc.	Fig.	Length	1	10	100
175345	ST-ST	1	2M (6'6")	$27.95	$25.25	$22.65
175353	ST-SC	2	1M (3'3")	29.95	26.95	24.29
175361	ST-SC	2	2M (6'6")	35.95	32.35	28.95
175370	SC-SC	3	1M (3'3")	32.95	29.95	26.95

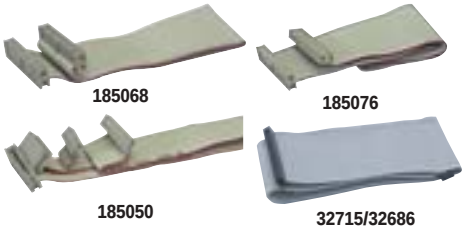
SCSI Adapters

133920 167370 129971 73461

- See page 133 for SCSI-type connector guide

Part No.	Description	1	10	50
133920	50-pin ribbon header SCSI-I to DB25 female	$6.95	$6.25	$5.59
125241	50-pin ribbon header to HPDB50 SCSI-II female	9.95	8.95	7.95
145293	DB25 male to HPDB50 female SCSI-II	15.95	14.35	12.95
167370	DB25 female to HPDB50 male SCSI-II	9.95	8.95	7.95
129971	Cent. 50 SCSI-I term.	.25	.22	.20
163424	Cent. 50 SCSI-I male to female pass thru term.	.39	.35	.31
73461	SCSI-II terminator	19.95	17.95	15.95

Internal Computer Ribbon Cables


185068 185076 185050 32715/32686

Part No.	Conductors	Length	1	10	100
185050	20&34	16.7"	$3.95	$3.49	$2.95
185068	34	9.0"	2.95	2.49	1.95
185076	34	14.0"	2.95	2.49	1.95
32686	40	18.0"	3.95	3.49	2.49
32715	50	18.0"	3.95	3.49	2.95

PC/XT/AT and PS/2 Keyboard Extension Cables

- Color: beige

22234/114981/112045/169826:
- IBM PC/XT and higher compatibles
- 5-pin DIN male-to-female

28548/111053:
- PS/2 computers
- 6-pin mini DIN female-to-male

114981

Part No.	Description	1	10	100
22234	PC/XT/AT 5' coiled	$3.49	$2.95	$2.49
114981	PC/XT/AT 6' non-coiled	3.49	2.95	2.49
169826	PC/XT/AT 10' coiled	3.49	2.95	2.49
112045	PC/XT/AT 10' non-coiled	4.95	3.85	2.95
28548	PS/2 6' non-coiled	3.95	3.49	2.95
111053	PS/2 10' non-coiled	4.95	4.49	3.95

PS/2 Keyboard Cable

- Coiled
- Color: beige
- Length: 5 ft.

SALE

Part No.	Description	1	10
128637	Modular to P/S2	$1.65	$1.47

AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables

28003:
- Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN

85500:
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors

SALE

28003

Part No.	Length	Color	Wt. (lbs.)	1	10	100
28003	7.3"	Beige	0.6	$3.95	$3.49	$2.75
85500	11.3"	Beige	0.8	4.95	4.25	3.49

IEEE-1394 Firewire Cables

175821 175839 175847

Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant • UL approved
- Molded connectors • Length: 6'

Part No.	Description	1	10	25
175821	4-pin M – M	$15.95	$14.49	$12.95
175839	6-pin M – 4-pin M	11.95	10.74	9.49
175847	6-pin M – M	9.95	8.94	8.04

We'll Send It Today! 99.7% Products Are In Stock!
Just place your order by 6PM EST for same business day shipment.

Internal and External SCSI Cables for Complete Connectivity

72848 137550 73162 137568

- For PC/XT/AT and compatibles • All lines connected

† Also Macintosh® compatibles, see page 133 for SCSI type connector guide

Part No.	Description	1	10	50
72848	50-pin header socket ribbon cable SCSI-I (24")†	$4.95	$4.45	$3.95
137550	68-pin header internal ribbon cable SCSI-III (27")	17.95	15.95	14.49
189641	68-pin header internal ribbon cable with term SCSI-III (42")	19.95	17.95	15.95
180507	Male 50-pin Centronics to male DB25 (SCSI-I) 5.5'	6.95	6.25	5.59
164769	Male 50-pin Centronics to male 50-pin Centronics SCSI-I to SCSI-I (3')†	5.95	5.49	4.95
73162	Male 50-pin Centronics to male 50-pin Centronics SCSI-I to SCSI-I (6')†	6.95	6.49	5.95
118084	Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6')	14.95	13.49	11.95
118914	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (3')	14.95	13.49	11.95
118076	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (6')	17.95	15.95	13.95
137576	Male HPDB68-pin to male 50-pin Centronics SCSI-III to SCSI-I (3')	17.95	15.95	13.95
137568	Male HPDB68-pin to male HPDB50-pin SCSI-III to SCSI-II (3')	12.95	11.49	9.95
137226	Male HPDB68-pin to male HPDB68-pin SCSI-III to SCSI-III (3')	18.95	16.95	15.45

IEEE-488 Cables

A variety of cable lengths are offered to ensure that the IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE-488 cables with stackable 24-pin GPIB connectors on both ends.

SALE

73154

- Color: gray

Part No.	Description	Wt. (lbs.)	1	10	25
73154	1 meter	0.8	$31.95	$28.95	$25.95
115781	2 meter	1.2	32.95	31.95	28.95
115801	4 meter	2.0	34.95	31.49	27.95

RGB Video Cables

73648

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male
- Weight: 0.9 lbs.

Part No.	Description	1	10	25
73648	6' cable (black)	$24.95	$22.49	$19.95
118068	10' cable (black)	26.95	24.49	21.95

RCA Cables

139037

177527

190617

- Video/audio applications
- See page 152 for jacks

† **139037:** 1/8" male stereo plug to two RCA male (red & white)
* **184882:** Low loss

Part No.	Description	1	10	100
183302	4' 2 males (red/black)	$2.95	$2.49	$1.95
139037†	5' male to male "Y"	2.95	2.12	1.56
177527	6' 3 males to 3 males	4.95	3.82	3.16
184882*	6' 3 males to 3 males	3.95	3.49	2.95
183311	4' male to male	.99	.89	.79
106374	6' male to male	.99	.79	.55
190617	10' male to male (black)	1.19	.99	.75
29348	10' male to male (yellow)	1.39	1.19	.99

VGA Monitor Cables

66173

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male

Part No.	Description	Wt. (lbs.)	1	10	100
66173	6' monitor cable	0.3	$5.95	$5.35	$4.95
148523	10' monitor cable	0.5	6.95	6.25	4.95

Standard Monitor Cable

- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles

Part No.	Description	Wt. (lbs.)	1	10	100
66157	6' DB9 M-M	0.3	$3.95	$3.49	$2.75

VGA Monitor Extension Cables

134041

66165

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles

134041:
- HDDB15 female with hex nuts and HDDB15 male with thumbscrews

66165/148531: • Thumbscrews on each end

Part No.	Description	Wt. (lbs.)	1	10	100
134041	6' screws/hex nuts	0.4	$4.49	$3.95	$3.49
66165	6' thumbscrews	0.3	4.95	4.49	3.75
148531	10' thumbscrews	0.5	6.95	6.25	5.59

37-Pin Straight Through Cable Adapters

180611

181294

- Molded connectors
- Color: gray • Length: 6' • Weight: 0.9 lbs.

Part No.	Description	1	10	100
180611	DC37 M-M	$5.95	$4.69	$3.95
181294	DC37 M-F	5.95	5.49	4.95

DA15 Extension Cables

DA15 connectors

181286

- Molded connectors
- Straight through
- Thumbscrews • Color: gray

Part No.	Description	Length	1	10	100
181286	DA15 M-M	6'	$4.95	$4.49	$3.95
181358	DA15 M-F	6'	4.95	4.49	3.95

DB25 Serial Modem Cables

26008

- Molded and fully shielded DB25 M-F
- 9 pins wired straight through: pins 1-8 and 20 (metal shell)

Part No.	Description	Wt. (lbs.)	1	10	100
53858	6' M-F	0.4	$4.49	$3.95	$3.49
26008	10' M-M	0.5	2.19	1.96	1.76

DB25 Ribbon Cable Assembly

- Metal connector
- 300V rating • 105°C rating
- 28 AWG flat cable
- Tin-plated contacts

Part No.	Description	1	10	100
12407	4' male to female	$4.95	$3.95	$2.95

DB25 to Centronics Parallel Printer Cables

28716

164777

- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles

[1] **180718:** For API printer DB25M to 50-pin Centronics male connector
[2] **164777:** DB25M to Centronics 36M rt. angle
[3] **180603:** For Amiga 100C printer

Part No.	Description	Wt. (lbs.)	1	10	100
180718	6' straight [1]	0.6	$3.95	$3.49	$2.95
28716	6' straight	0.4	3.95	3.49	2.95
58536	8' straight	0.9	4.95	4.49	3.95
123781	10' straight	0.6	4.49	3.82	3.25
180603	10' straight [3]	0.9	2.69	2.40	2.16
164777	10' right angle [2]	0.7	4.49	3.35	2.60
28708	15' straight	0.8	5.95	4.95	—
101899	25' straight	1.1	6.95	6.25	4.95
184786	50' straight	2.1	9.99	7.59	5.59

36-Pin Centronics Printer Extension Cables

25 or 36 Conductors

40782

- Molded and fully shielded Centronics 36-pin male and female connectors
- Use to lengthen standard printer cables or for switch box applications
- Weight: 1.0 lb.

* **135028:** metal hood, black
** **180574:** metal housing

Part No.	Description	# of Conductors	1	10	100
180531	6' M-M	25	$1.09	$.99	$.89
40791	10' M-M	25	1.29	1.19	1.06
180574**	10' M-M metal	25	1.29	1.14	1.02
183396	15' M-M	25	1.89	1.69	1.52
180515	6' M-F	25	1.29	1.14	1.02
135028*	8' M-M metal	36	1.89	1.69	1.52
180443	6' M-F	36	1.45	1.28	1.15
40782	10' M-F	36	3.49	3.12	2.80

DB9 Extension Cables

132345

25700

- All lines connected straight through

132345/196365:
- DB9 female to DB9 female cable with thumbscrews

25700/148515:
- DB9 male to DB9 female cable with thumbscrews

181665: • DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
132345	6' F-F	$4.95	$4.49	$3.95	$3.49
25700	6' M-F	5.95	5.35	4.95	4.33
196365	10' F-F	6.95	6.25	5.59	4.95
148515	10' M-F	6.95	6.25	5.59	4.95
181665	10' M-M	6.95	6.25	5.59	4.95

9-Pin Test Cables

162915

154798: DB9 M to DB25 M (2')
- Pin outs: 2-2, 3-3, 5-7, 7-5, 8-4

162915: DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5

Part No.	Description	1	10	100
154798	DB9 male to DB25 male	$1.35	$1.17	$1.05
162915	DB9 male to DB9 female	3.49	2.95	1.99

DB9 to DB25 AT-Adapter Serial Cables

31721

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors

Part No.	Description	Wt. (lbs.)	1	10	100
109583	1'serial, beige	0.2	$3.95	$3.55	$3.19
189333	3'serial, beige	0.3	4.25	3.75	2.95
31721	6'serial, beige	0.3	4.95	4.49	3.75
191361	6'serial, gray	0.4	4.95	4.49	3.95
155521	10'serial, beige	0.5	4.49	3.49	2.49

DB25 Extension Cables

67256

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns **174001/180451/175290:** black*

Part No.	Description	Wt. (lbs.)	1	10	100	1000
174001*	3' M-M	0.6	$3.49	$2.95	$2.49	$1.95
65787	6' M-M	0.5	5.95	5.35	4.95	4.89
39538	10' M-M	0.7	6.95	6.25	5.65	5.15
180451*	10' M-M	1.1	5.25	4.28	3.36	2.79
179979	15' M-M	1.2	6.95	5.95	4.95	3.95
67070	25' M-M	1.4	9.95	8.95	7.95	6.95
180435	50' M-M	3.6	14.95	13.49	11.95	9.95
175329	1' M-F	0.3	2.49	2.25	1.75	1.49
164291	3' M-F	0.4	3.25	2.65	1.92	1.19
175290*	3' M-F	0.4	2.95	2.49	1.95	—
163133	5' M-F	0.6	3.49	2.95	2.12	1.56
67256	6' M-F	0.6	5.95	5.35	4.95	4.65
39511	10' M-F	0.7	6.95	6.25	5.65	5.15
177279	15' M-F	1.0	7.95	6.25	5.05	3.95
101995	25' M-F	1.4	9.95	8.95	7.95	6.95
181201	50' M-F	3.2	14.95	13.49	11.95	9.95
180478	6' F-F	0.7	4.95	4.05	3.19	2.60
181331	10' F-F	0.9	7.49	6.74	5.95	5.29

Part Number Color Code
New Sale Refurbished Closeout

Slim-Line D-Sub Gender Changers to Save Space

18497 56071 18446

180662

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female) • Grounding tangs (male)

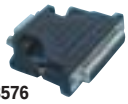
Part No.	Description	1	10	100
18497	D-sub 9-pin male	$4.49	$3.95	$3.55
18489	D-sub 9-pin female	4.49	3.95	3.55
56071	D-sub 15-pin male	3.95	3.49	2.95
56063	D-sub 15-pin female	3.49	2.95	1.95
119319	D-sub 15-pin female HD	4.49	3.95	3.55
119301	D-sub 15-pin male HD	3.95	3.49	2.95
18446	D-sub 25-pin male	4.49	3.95	3.55
18420	D-sub 25-pin female	4.49	3.95	3.55
170085	D-sub 25-pin M-F	2.95	2.51	1.56
18471	D-sub 37-pin male	2.35	2.15	1.89
180662	Centronic 36-pin male	3.49	2.95	2.36

D-Sub 9-Pin to 25-Pin Serial Adapters

SALE

10305

10305: For use in AT or other computer systems that have 9-pin D-sub serial ports.
153576/10321/163740: For PC/XT systems with DB25 serial ports.
* **189632:** 4-40 x .24" hex nut (4)
** **189632:** thumbscrews
† **139985:** gold-plated contacts, extra long thumbscrews



153576

Part No.	Description	1	10	100
10305	DB9 F to DB25 M	$3.49	$2.95	$2.49
163740	DB9 M to DB25 F, thumbscrews on DB9 side only	1.49	1.25	.99
153576	DB9 M to DB25 F, thumbscrews on DB25 side only	2.95	2.12	1.39
191610	DB9 F to DB25 M, thumbscrews on DB25 side only	2.95	2.49	1.75
10321	DB9 M to DB25 F	4.29	3.59	2.95
154683*	DB9 F to DB25 F	2.49	1.95	1.25
189632**	DB9 M to DB25 M	2.95	2.49	1.95
139985†	DB9 F to DB25 F	3.95	3.49	2.95

6-Pin Male Mini DIN to 9-Pin Male D-Sub Adapter

152901

180523

100335

Pin-to-pin connections:

6-pin male mini DIN	1	2	3	4	5	6
9-pin male D-sub						
152901	9	—	3, 5	4, 6	8	—
100335	1	—	3, 9	2, 5, 7	6	—
180523	2	3	5	4, 7	5	—

- Color: beige • Size: 1.6"L x 1.3"W

Part No.	Description	1	10	100
152901	W/ threaded spacer	$3.45	$3.09	$2.79
100335	W/ thumbscrew	4.45	3.95	3.55
180523	Cable adapter (1 ft.)	3.45	3.09	2.79

Standard D-Sub Gender Changers

16643 181139 22058

- Standard 9- and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

183361

Part No.	Description	1	10	100
16635	D-sub 9-pin male	$1.95	$1.75	$1.49
16643	D-sub 9-pin female	1.95	1.75	1.49
181139	D-sub 15-pin female HD	1.75	1.49	1.19
22058	D-sub 25-pin male	1.95	1.75	1.49
22074	D-sub 25-pin female	1.75	1.49	1.19
183361	Centronics 36-pin female	2.49	1.95	1.39

AT and PS/2 Keyboard Adapters

159089

159097

SALE

157930

159089/189771: AT keyboard adapter
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN

189771

159097/157930: PS/2 keyboard adapter
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

Part No.	Length	Housing	1	10	100
159089	1.6"	Metal	$2.95	$2.49	$1.95
159097	1.4"	Metal	2.95	2.49	1.95
157930	1.7"	Plastic/metal	2.75	2.49	1.95
189771	1.7"	Plastic	2.95	2.49	1.95

15-Pin to 9-Pin VGA Adapter

- Adapts 15-pin VGA to 9-pin output
- Male HDDB15 to female DB9 adapter

Part No.	Description	1	10	100
75264	VGA adapter	$4.45	$3.95	$3.55

Switch Box Adapter Cables

174772

177261: • 2' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, pg 160
114913: • 5' gray 5-pin DIN M-M coiled cable for P/Ns 114163/114155 switch boxes, pg 160
174772: • 6' black 6-pin mini DIN M-M
174908: • 6' gray 6-pin mini DIN M-M
112627: • 10' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, pg 160

Part No.	Description	Length	1	10	50
177261	6-pin mini DIN	2' (gray)	$2.95	$2.12	$1.56
114913	5-pin DIN	5' (gray)	4.95	4.49	3.95
174772	6-pin mini DIN	6' (blk)	4.75	3.82	3.16
174908	6-pin mini DIN	6' (gray)	4.95	3.82	3.16
112627	6-pin mini DIN	10' (gray)	6.95	6.25	5.65

Full Handshaking Null Modem Adapters

26260

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.

Internal pin configuration:
26260/17224: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20
26243: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7

Part No.	Description	1	10	100
26260	DB25 M to DB25 M	$3.49	$2.95	$2.49
26243	DB25 M to DB25 F	3.95	3.49	2.95
17224	DB25 F to DB25 F	3.49	2.95	2.49

PC Monitor Power Cables

- Allows connection of monitors directly to standard IBM type power supplies
- Monitor turns on/off automatically via system power switch
- IBM PC/XT and higher compatibles
- See page 57 for more power adapter cables

Part No.	Description	1	10	100
177447	1' monitor cable	$2.95	$2.49	$1.95
26382	6' monitor cable	3.19	2.79	2.49
177455	10' monitor cable	.29	.25	.23

Serial Null Modem Cables

180697 180582 180742 180726 181366

SALE

181260

- Molded type connectors • Color: gray

181403/180697 Pin outs: 1–7 & 8; 2-3; 3-2; 4-6; 5-5; 6-4; 7 & 8-1
181438 Pin outs: 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial Printer Null Modem)
180582 Pin outs: 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial Printer Null Modem)
180742 Pin outs: 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8
180726/181366/181243/181251/181260 Pin outs: 2-3; 3-2; 4 & 5-8; 6-20; 7-7; 8-4 & 5; 20-6

Part No.	Description	Length (ft.)	Weight (lbs.)	1	10	50
181403	DB9 female to DB9 female	6	0.3	$4.95	$4.49	$3.95
180697	DB9 female to DB9 female	10	0.4	5.95	5.49	4.95
181438	DB25 male to DB9 female	6	0.4	4.95	4.49	3.95
180582	DB25 male to DB9 female	10	0.4	5.95	5.49	4.95
180742	DB25 female to DB9 female	10	0.5	5.95	4.66	3.96
180726	DB25 male to DB25 male	6	0.5	4.95	3.82	3.16
181366	DB25 male to DB25 female	6	0.5	2.65	2.36	2.12
181243	DB25 male to DB25 female	10	0.6	3.25	2.92	2.62
181251	DB25 male to DB25 female	25	1.2	3.65	3.27	2.94
181260	DB25 female to DB25 female	10	0.6	3.25	2.92	2.62

5.6" Color TFT Monitor

NTSC Format

- TFTcolor LCD display
- 75,000 pixel display resolution
- Built-in 1 watt speaker
- Brightness and color adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.9"W x 5.4"H x 1.0"D • Weight: 1.9 lbs.

Requires: 12VDC regulated power supply, not included (recommend P/N 162996, pg 72)

Includes: RCA cable, mounting stand w/hardware

Part No.	Description	1	10
196381	5.6" TFT color monitor ...	$279.95	$259.95

4" TFT LCD Monitor

NTSC Format

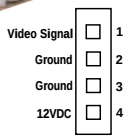
- TFT color LCD
- Resolution 234 x 383 dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position molex type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.

Part No.	Description	1	10
172742	4" color LCD monitor	$159.95	$149.95

4" Active Matrix LCD Monitor

NTSC Format

- TFT active matrix
- Resolution: 234 x 383 dpi; RGB delta configuration
- Input voltage: 12VDC @ 500mA
- Power consumption: <800mA
- Video input: composite video signal I Vp-p; 75Ω
- Backlight: cold cathode filament tube
- 2" long stripped and tinned wires for power and video connection
- Wider view angle • Weight: 1.1 lbs.
- Size: 4.7"L x 3.4"W x 1.5"H (unit) 4.0"L x 3.3"W x 0.7"H (display)



Includes: Manual

Part No.	Description	1	10
154747	4" LCD color monitor	$279.95	$259.95

10" Black and White Security Monitor with Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- LED indicator for power
- Push down front panel for vertical hold and size, brightness, volume, and contrast adjustments, power on/off switch
- Horizontal frequency, focus and sub-brightness adjustment, impedance input switch, 1 BNC female & 1 RCA jack for audio/video input/output
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.

Includes: Manual

Part No.	Description	1	10
192719	10" black & white monitor	$119.95	$107.95

SONY® Low-Light Color Camera

Sony Chipset

- 1/3" Sony super HAD CCD image sensor
- NTSC system with 510(H) x 492(V)
- 380 horizontal TV lines
- 0.2 lux/F2.0 • FOV: 92.6˚
- Signal to noise ratio: >48dB
- Auto electronic shutter speed: 1/60 to 1/100,000 sec.
- Video output: 1V p-p composite video/75Ω
- Size: 1.9"L x 1.9"W x 1.0"H • Lens: 3.6mm
- One-year warranty

Requires: 12V @ 220mA center positive power supply (not included, P/N 162996, pg 72)

Includes: Mounting hardware

Part No.	Description	1	10
153867	Enclosed color camera	$199.95	$179.95

SONY® Black & White Low-Light Camera

Sony Chipset

150931

- Lens: 3.6mm
- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 7" (P/N 150949)/ 6" (P/N 150931) wires with 4-pin Molex-type keyed connector
- One-year warranty

150949: • EIA system 510(H) x 492(V)
- 1/3" Sony CCD image sensor
- 400 TV line resolution • 0.1 lux/F2.0
- Auto shutter speed: 1/60 - 1/100,00 • FOV: 92˚
- Size: 1.7"L x 1.7"W x 1.1"H

150931: • EIA system 537(H) x 505(V)
- Composite output with 420 line resolution
- Shutter speed: 1/60 - 1/1000 • FOV: 92.6˚
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H

Part No.	Description	1	10	25
150949	Board w/ audio	$89.95	$80.95	$72.95
150931	Camera board	79.95	71.95	64.95
174705	2.5mm lens 130˚	16.95	16.05	14.45
159062	6mm lens 56˚	17.59	15.79	14.22
159071	8mm lens 38.6˚	19.95	17.95	15.95

SONY® Color Camera

Sony Chipset

- 380 line resolution
- NTSC format 510(H) x 492(V)
- Signal to noise ratio: >48dB
- Sensor: Sony 1/3" interline transfer CCD
- Auto electric shutter: 1 to 1/100,000 sec. linear
- Focus range: 10mm to infinity • Lens: 3.6mm/F2.0
- Automatic gain control • Automatic white balance
- Video output: 1Vp-p, 75Ω (mating connector BNC type: P/N 135618, pg 151)
- Two 9" wires w/ 2-pin Molex type keyed connector
- 3" wire harness with 15-pin Molex type keyed connector
- Size: mother card: 2.3"L x 1.7"W; analysis card: 2.0"L x 1.7"W; sensor card: 1.7"L x 1.1"W x 1.0"H
- Lens: 3.6mm • FOV: 92.6˚

Requires: Center positive 12VDC @ 150mA power supply (recommend P/N 149340, pg 72) and mating connector (recommend P/N 28767, pg 60)

Part No.	Description	1	10
139571	Color camera board	$179.95	$161.95

Color Camera Board

NTSC Format

- 1/3" CCD image sensor
- 330 TV lines
- 5.0 lux • FOV: 92˚
- 3.6mm lens/F2.0
- Low power consumption
- Automatic exposure, gain and white balance
- Size: 1.0"L x 0.9"W x 1.1"H

Part No.	Description	1	10
171011	Camera board	$59.95	$53.95

Mini Enclosed Color NTSC Camera

- 1/4" CCD image sensor
- NTSC system with 512(H) x 492(V)
- 330 horizontal TV lines
- 2 Lux/F2.0 • FOV: 106˚
- Electronic shutter: NTSC – 1/60 to 1/96,000 sec.
- Lens: 3.6mm/F2.0 • Signal to noise ratio: 46dB
- Scanning system: 2:1 interlace
- Video output: 1V p-p composite video/75Ω
- Size (enclosure): 1.2"L x 1.2"W x 0.7"D
- Weight: 0.9 lbs. • One-year warranty

Requires: 9VDC @ 500 mA power supply (recommend P/N 100853, pg 72)

Includes: Mounting hardware and cable

Part No.	Description	1	10
168575	Mini enclosed camera	$139.95	$129.95

Black & White Camera

EIA Format

- 1/3" CCD image sensor
- 510(H) x 492(V)
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- S/N ratio: 46dB
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N 162996, pg 72)
- Power consumption: 110mA • FOV: 92˚
- Electronic shutter: 1/125,000 sec. (linear)
- Size: 1.3"L x 1.3"W x 1.2"H

Part No.	Description	1	10
171029	Camera board	$47.95	$42.95

Color Interline Camera

Water Resistant w/ Adjustable Mounting Bracket

- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω
- 6mm lens/F2.0
- S/N ratio: 40dB • FOV: 530
- Electronic shutter: 1/60 – 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia.

Requires: 12VDC @ 40mA center positive power supply (recommend P/N 162996, pg 72)

Includes: Adjustable mounting bracket and instruction sheet

Part No.	Description	1	10
185017	Color camera	$99.95	$89.95

Part Number Color Code
New Sale Refurbished Closeout

Color and B&W Cameras

171248

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- More than 380TV lines horizontal resolution
- 15.734kHz synchronous frequency
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB • FOV: 42.°
- BNC connector for video
- Video output: 1Vp-p; 75Ω
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.

171256: B&W • 0.3 lux
- 512(H) x 492(V) EIA signal format
- Auto iris: DC driver / AES / video driver switchable

171248: Color • 1.0 lux / F1.4
- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable

Requires: 12VDC @ 140mA power supply (recommend P/N 162996, pg 72)

Part No.	Description	1	10
171256	B&W CCD camera	$109.95	$99.95
171248	Color CCD camera	224.95	201.95

4-Channel 2.4GHz Wireless Color Camera

NTSC Format

SALE

- Output impedance: 50Ω typical
- Video input: 1Vp-p composite video; BNC connector
- 330 TV line resolution
- Audio input: 2Vp-p maximum
- 4 channel jumper selectable at the back of unit
- Output power: 10mW
- 1/4" DSP color CCD sensor
- 2 lux illumination
- Function chip on board
- Built-in 3.8mm board lens • FOV: 92°
- Size: 2.9"L x 2.2"W x 2.0"H • Weight: 1.6 lbs.

Includes: Mounting bracket, manual and 12VDC @ 500mA center positive AC adapter

Part No.	Description	Price
170991	2.4GHz color camera	$195.95

Black & White CCD Camera with 6" Monitor

Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line resolution
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- 2:1 interlace scanning system • S/N ratio: 48dB
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92°
- Size: 2.2"W x 2.8"D x 2.1"H

Includes: Camera bracket

Monitor: EIA Format
- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

Includes: 20M audio/video cable, manual and 15V @ 1A center positive power supply

Part No.	Description	1	10
170616	Camera w/ monitor.....	$159.95	$143.95

Night Vision Infrared Lighted Camera

EIA Format

2.4GHz

169607

- Adjustable camera lens
- 6 infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Horizontal sync. freq.: 15.734kHz
- 380 TV line resolution • FOV: 92°
- Video output: 1V p-p; 75Ω
- 0.1 lux with F2.0 • Lens: 3.6mm

Includes: 12VDC @ 500mA power supply and wall mounting bracket

169607:
- 2.4GHz
- 4-channels jumper configurable
- Audio output: 2V p-p max.
- Size: 2.8"L x 2.1"W x 2.1"H
- Weight: 1.3 lbs.

150404:
- Auto iris controlled
- Built-in voltage regulator
- Matching connectors: RG59 BNC (P/N 71271, pg 151)
- Operating voltage: 12–15VDC
- Size: 2.9"L x 2.0"W x 2.0"H
- Weight: 1.2 lbs.

150404

Part No.	Description	1	10
169607	2.4GHz infrared camera	$159.95	$144.95
150404	Infrared lighted camera	124.95	112.45

Color Camera with Audio Microphone

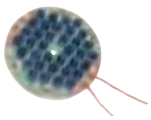
NTSC Format

- Pick-up device: 1/4" CCD image sensor • FOV: 92°
- Picture elements: 512(H) x 492(V) lines
- 330 TV line resolution
- Minimum illumination: 2 lux
- Horizontal sync. frequency: 15.734kHz
- Vertical frequency: 60Hz
- Lens: 3.8mm/F2.0
- Scanning system: 2:1 interlace
- Video output: 1V p-p, 75Ω
- Audio output: 2V p-p max.
- Size: 2.9"L x 2.1"W x 2.0"H • Weight: 0.3 lbs.

Requires: 12V regulated power supply (recommend P/N 162996, pg 72)

Part No.	Description	1	10
169404	Encl. camera w/ audio	$139.95	$129.95

IR LED Illuminator Kit



- 41-piece kit
- Beginner level
- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across
- Dimwnsions: 2"Diameter

Requires: 12-15VDC power supply (recommend P/N 114825, pg 72)

Part No.	Description	1	10	25
157964	IR illuminator kit	$14.95	$13.49	$11.95

2.4GHz Wireless B&W CCD Cameras

SALE

- 1/3" CCD image sensor
- 380 TV line resolution
- 512(H) x 492(V)
- Auto electronic shutter
- Audio and video transmission
- S/N ratio: more than 48dB
- Impedance output: 75Ω typical
- Video input: 1Vp-p composite video (75Ω)
- Audio input: 2Vp-p maximum
- Built-in 15VDC regulator and microphone
- 4-channel jumper configurable
- EIA format; 0.1 lux/F1.2; 3.6mm lens with FOV: 92°
- Size: 3.6"L x 2.2"W x 2.1"H
- Weight: 2.0 lbs.

Includes: 15VDC power supply, antenna, mounting bracket and manual

Part No.	Description	1	10
174764	B&W camera	$120.95	$108.60

2.4GHz Wireless Color CCD Camera

With AES/AI Video Drive

Lens not Included

- 1/3" CCD interline sensor
- 380 TV line resolution
- 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Auto electronic shutter (AES): 1 to 1/100,000 sec
- Auto iris (AI) control video drive switchable
- S/N ratio: more than 48dB
- Video output: 1Vp-p/75Ω
- Impedance output: 75Ω typical
- LED power "ON" indicator at rear panel
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 2.1 lbs.
- Color; NTSC format; 2.0 lux/F1.2

Includes: 15VDC power supply, antenna, mounting bracket and manual

Part No.	Description	1	10
174810	Color camera	$349.95	$314.95

Mini Dome Color Camera

NTSC Format

- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- 15.73kHz horizontal synch. frequency
- S/N ratio: 46dB
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996, pg 72)
- 2 lux/F2.0 • FOV: 92° • Size: 3.5"Dia. x 2.3"H

Includes: Mounting hardware

Part No.	Description	1	10
171037	Mini-dome camera	$139.95	$125.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

4-Channel Matrix Switcher

NTSC Signal Format

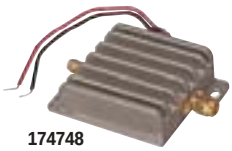
- Inputs: 4
- Video input/output: 1Vp-p, 75Ω
- Output: 2 selectable on screen
- Video gain: from attenuation to amplifier (0.8 to 1.4 Vp-p) • Video bandwidth: 2MHz (±3dB)
- Switching interval: 1 to 30 seconds selectable on screen • By-pass, scan, home selectable on screen
- BNC connector to video & RCA connector for audio
- Size: 9.3"L x 4.7"W x 1.6"H • Weight: 2.4 lbs.

Includes: Manual, remote control and 9VDC @ 200mA power supply

Part No.	Description	1	10
169228	4 channel switcher	$89.95	$79.95

2.4GHz Wireless Antenna Booster

Extend Video Transmitting Distance



174748

179872

- Output power: 1 watt
- Audio/Video booster
- FM design
- Impedance output: 50Ω typical (to antenna)
- Video output: 1Vp-p composite video; 75Ω (to camera)
- Size: 2.0"L x 1.9"W x 0.7"H

Includes: Wall transformer, adapter and mounting hardware

Part No.	Description	1	10
174748	Antenna booster	$199.95	$179.95
179872	Wireless extension cable	14.95	13.49

2.4GHz High Gain Directional Antenna

- Indoor and outdoor use
- Gain: 8.5dB • Impedance: 50Ω
- Weatherproof & corrosion resistant
- Distance: 150 – 300ft. (open area)
- Frequency range: 2300 – 2500MHz
- Cable: RG58/U with SMA male connector
- Connector: SMA male • Cable length: 0.8 ft.
- Size: 4.8"W x 4.8"H x 2.8"D • Weight: 0.7 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
174721	Antenna	$129.95	$116.95	$104.95

2.4GHz SMA RF Antenna

Unidirectional

- For use with 2.4GHz cameras, transmitters, and receivers
- Gain: 3dB • SMA male • Size: 3.6"L

Part No.	Description	1	10
179864	2.4GHz antenna	$12.95	$11.49

Mini Alarm Siren

- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned • Size: 2.8"Dia. x 2.5"L

Part No.	Description	1	10	50
148152	Alarm siren	$7.95	$5.95	$4.95

Pan/Tilt Controller Box

With Zoom Lens Control

- Input voltage: 115VAC
- Single joy pad and auto pan control for manual and auto pan operations
- Iris, focus, and zoom paddle switches for manual and auto pan operations
- Use with pan/tilt mechanism, P/N 179899, below
- Lens connectors: screw down terminals
- Pan/tilt connectors: 8P mike connector
- Power consumption: 8.5 watts
- Size: 8.6"W x 7.9"D x 1.6"H • Weight: 4.0 lbs.

Part No.	Description	1	10
179881	Pan/tilt controller box	$97.25	$87.52

Indoor Pan/Tilt Mechanism

Continuous Pan

Shown with optional camera

- Auto mode for continuous pan
- Angular travel pan: 355˚
- Angular travel tilt: ±60˚ (up/down)
- Externally adjustable limited switch
- Pan speed: 6˚/sec.
- Tilt speed: 3˚/sec.
- Input voltage: 115VAC
- Maximum load: 11 lbs.
- Weight: 4.6 lbs.
- Use with controller box, P/N 179881, above
- Size: (overall) 7.5"H x 6.2"W x 5.4"D

Part No.	Description	1	10
179899	Pan/tilt mechanism	$249.95	$224.95

Metal Housing Camera Enclosures

170931

- Plate glass: 3mm thick

170931: without heater

- Clear window area: 2.5"W x 2.3"H
- Indoor use
- Max. camera size: 4.0"L x 2.4"W x 2.4"H
- Size: 16.0"L x 4.9"W x 4.9"H • Weight: 2.8 lbs.

170940: with heater

- Clear window area: 3.5"W x 3.1"H • Outdoor use
- Max. camera size: 6.5"L x 3.2"W x 3.2"H
- Size: 11.0"L x 3.6"W x 3.6"H • Weight: 6.8 lbs.

Part No.	Description	1	10
170931	Camera housing	$29.95	$26.95
170940	Camera housing w/ heater	64.95	59.95

Quad Digital Color Video Processor

NTSC Signal Format

- 4 with loop inputs
- Video input: 1Vp-p, 75Ω typical
- Video output quad: 2x1Vp-p, 75Ω
- Digital memory: 1024x512
- Zoom relay with 2x2 zoom definition
- Alarm inputs/outputs: 4/1 contact normally open/normally closed
- Switching interval: 0–99 seconds
- Day/time generator format: month/day/hour/min./sec.
- 8 character title display • BNC video connections
- Size: 16.9"L x 9.5"W x 1.7"H • Weight: 8.1 lbs.

SALE

Includes: Manual & 24VAC @ 750mA power supply

Part No.	Description	1	5
170974	Color video processor	$277.95	$249.75

4-Channel 2.4GHz Wireless Audio/Video Transmitter System

EIA Format

- ISM band: 2.4–2.483GHz
- Four selectable channel transmitter and receiver
- Audio response: 20Hz–20kHz
- Antenna mode: dipole (omnidirectional)
- Video output: 1V p-p/75Ω composite video
- RCA jacks for audio/video connectors
- Weight: 3.3 lbs.

Includes: Two 12VDC @ 500mA w/ 2.1mm x 5.5mm center positive plug, and patch cables

Transmitter: • Size: 3.5"L x 2.5"W x 1.1"H
- Input voltage: 12VDC @ 500mA
- Output voltage: 12VDC @ 300mA

Receiver: • Size: 5.1"L x 4.0"W x 1.0"H
- Input voltage: 12VDC @ 500mA

Part No.	Description	1	10
169631	4-ch. wireless system	$151.95	$134.95

4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

Make your camera wireless up to 495 feet!

192858

- Transmission range: 495' (150M outdoors); 198' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

Receiver:

192866

- Built-in OSD time generator – date/time/channel
- Video loss detection and freeze channel
- Non-volatile memory protects system set-up from power loss
- Mute and alarm trigger port
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H
- Weight: 1.8 lbs.

Includes: RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

Part No.	Description	1	10
192858	4-channel transmitter	$89.95	$79.95
192866	4-channel receiver	124.95	112.95

Mounting Brackets for Enclosed Camera

171002 170982

- Material: plastic
- Base mounted w/ 3 screws
- Swivel angle: 360˚
- Tilt angle: 90˚
- For use w/ enclosed cameras (P/Ns 169607/150404/ 169404/170991, right)

171002:
- Color: ivory
- Max load: 11 lbs.

170982:
- Color: white • Max load: 6.6 lbs.

Part No.	Product No.	Ht. (in.)	1	10
171002	15-B002L	6.4	$4.95	$4.49
170982	15-B004	2.0	6.95	6.25

Part Number Color Code
New Sale Refurbished Closeout

Audio/Video Adapters (CAT 5 UTP)

- Designed to convert impedance of video/ audio signals to 100Ω for transmission over CAT 5 UTP cable
- Supports both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing premises wiring and wall jacks for easy and cost effective installation

195750: • Transmission distance: 1968 ft.
- Signal pair: video (BNC), CAT pair 1 (RJ45)

Includes: RJ45 to wire terminal block adapter

155002: • Transmission distance: 1000' color video, 2000' for B/W video
- Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA), CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

Includes: 1 RCA to BNC adapter & 2 mounting screws

Part No.	Connector Type	1	10
195750	BNC/RJ45	$29.95	$26.95
155002	BNC/RCA/RJ45	42.95	38.95

AverKey *Pro* PC to TV Converter Box

- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Two-year warranty
- Size: 6.0"L x 4.0"W x 1.0"H • Weight: 2.2 lbs.

System requirements: VGA-based PC, DOS 3.0 or higher, 640kB RAM or larger

Includes: Compact PC to video converter box, transformer, utilities diskette, cables and manual

Part No.	Description	1	10
167193	Video signal pro	$109.95	$99.95

SMK RF Modulator

- Output frequency: NTSC Ch. 3/4, switch selectable
- 12VDC RF modulator
- Operating voltage: 12V@ 50mA max.
- RF output impedance: 75Ω (F-type connector)
- Video modulation: 1.0V p-p
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H • MFG. #: WMN2144-01

Part No.	Description	1	10	50	100
141639	RF modulator	$4.95	$4.49	$3.95	$3.25

15-Watt Multimedia Amplified Speakers

- 2 speakers • Headset jack
- Volume controls
- Size: 2.9"W x 4.7"D x 7.2"H
- Weight: 2.7 lbs.

Includes: 9VDC class 2 transformer

Part No.	Description	1	10	25
140020	15W speakers	$12.95	$11.49	$9.95

200/480-Watt Multimedia Amplified Speakers

SALE

- Input voltage: 120VAC
- 2 speakers
- Magnetically shielded
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble

196066: Size: 5.5"W x 7.0"D x 9.1"H; Weight: 5.3 lbs.
180304: Size: 5.5"W x 7.0"D x 8.5"H; Weight: 7.3 lbs.

Part No.	Description	1	10
196066	480W speakers	$39.95	$35.95
180304	200W speakers	34.95	31.49

4-Watt Amplified Stereo Speakers

Fits 5.25" Bay

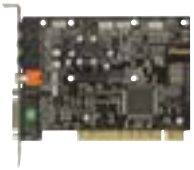
SALE

- 8Ω speakers with frequency response of 250Hz to 20kHz @ 83dB
- Compatible with all sound boards, CD-ROMs, CD digital audio players and MPC systems
- Size: 5.8"W x 7.5"D x 1.7"H • Weight: 1.4 lbs.

Part No.	Description	1	10
153541	Self-amplified speakers	$50.25	$45.21

PCI Sound with Wavetable

YMF724F-V Chipset



- PCI 2.1, PC '97/98 & PCI bus power management rev. 1.0 compliant
- PCI bus master for PCI Audio: true full duplex playback & capture; direct sound/direct music hardware acceleration
- Legacy audio compatibility
- Supports Yamaha AC-3 device
- Input jacks for line-in/microphone/audio output; 15-pin port for joystick • Size: 5.0"L x 3.4"W

System requirements: Pentium® 100MHz or faster; 16MB of RAM; available PCI slot; Windows® 95; 15MB hard disk space; CD-ROM drive

Part No.	Description	1	10
184858	PCI sound card	$29.95	$26.95

Headset with Microphone

SALE

- Color: black
- 3.5mm male jack connector

Headphones:
- Frequency range: 20Hz to 18kHz
- Impedance: 320W
- Max. power input: 100Ω
- Sensitivity: 96dB @ 1kHz

Microphone:
- Frequency range: 50Hz to 12.5kHz
- Output impedance: <2kΩ • Sensitivity: 58dB

Part No.	Description	1	10	25
190588	Headphones w/ mic.	$6.85	$6.15	$5.53

Omni-Directional Microphone Headset

- Frequency range: 20Hz to 20kHz (headset); 50Hz to 16kHz (microphone)
- Impedance: 32Ω
- Maximum power: 100mW
- Sensitivity: 98dB (headset); -62dB (microphone)
- Swivel microphone arm pivot
- Flexible microphone arm
- 6' cord • Two 1/8" phone jacks

Part No.	Description	1	10	25
153875	Microphone headset	$11.95	$10.75	$9.69

Telephone Headset

A condenser microphone with adjustable gooseneck boom. Swinging earpiece allows headset to be worn on either ear.

SALE

- Connector: 3.5mm male stereo plug
- Gooseneck length: 4.9"
- Compatible with Motorola cell phones
- Cord length: 4'3" • Color: beige

Part No.	Description	1	10	25
189923	Telephone headset	$8.45	$7.56	$6.80

In-Ear Stereo Headphones

SALE

- 3.5mm input jack connector
- Typical application: CD player
- Color: gray • 4' Long

Part No.	Description	1	10	100	1000
191880	Headphones	$2.95	$2.49	$1.75	$1.25

Desktop Microphone

- Connector: 3.5mm male stereo plug
- Neck length: 17.5"
- Cord length: 5.5'
- One-year warranty

Part No.	Description	1	10	25
129963	Desktop microphone	$5.95	$5.35	$4.79

Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H • One-year warranty

Part No.	Description	1	10	25
135247	Microphone	$3.95	$3.75	$3.50

"Surge Plus" Power/ Modem Protector

Internet Users – Protect Your Modem!

SALE

- Plugs directly into power outlet
- Maximum rating: 15A/125AC
- Protected telephone RJ11 jack (6P4C)
- Lifetime warranty • Size: 3.3"L x 2.2"W x 1.2"H

Part No.	Product No.	1	10	100
160901	700-1M	$6.95	$6.25	$4.95

Serial Cable Surge Suppressor

Protects your sensitive line drivers/receivers against damaging power surges.

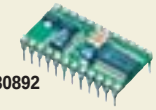
SALE

- DB25 (female to male)
- In-line adapter to protect serial devices

Part No.	Description	1	10	100
72371	RS232 surge sup.	$2.19	$1.99	$1.79

BASIC Stamps

127693


130892

BASIC Stamps are small computers using a variation of BASIC called PBASIC to control execution of many applications. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Each allows you to store data in the EEPROM before downloading a BASIC program.

Includes: Embedded BASIC plus instruction sets; BASIC interpreter, EEPROM (non-volatile), a resonator and 5V regulator

See page 32 for Serial LCD Modules

Specifications:	127693	130892
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP
Volts Required	5-15VDC	5-15VDC
Size	1.4"L x 0.4"W	1.2"L x 0.6"W

140071: BASIC Stamp®2 Starter Kit w/ BS2-IC (27203)

140071

Design your own project today using this BASIC Stamp kit. Includes the super carrier board, software, manual and programming cable. BASIC Stamp 2 can be connected directly to buttons, LEDs, registers and many other TTL devices.

Inset of Carrier Board

Part No.	Parallax No.	Wt. (lbs.)	1	10
127693	BS1-IC	0.01	$34.95	$31.49
130892	BS2-IC	0.01	49.95	44.95
140071	27203 Kit	1.9	149.95	134.95

BASIC Stamp Learning Kit

Designed to teach the PBASIC language and hardware control with a set of built-in components. Package includes the BASIC Stamp Activity Board, sample programs on disk, and 9-volt DC 300mA wall-pack power supply.

- 4 push-buttons to stimulate inputs and 4 LEDs to indicate their status
- 32Ω speaker outputs frequencies of 500-8kHz
- Potentiometer for analog input
- RC network for changing PWM into a smooth analog output
- 2 sockets for 8-pin DIP ICs
- X-10 interface via RJ-11 connection (BS2-IC & BS2SX-IC only)
- Size: 4.0"L x 3.0"W • Weight: 0.7 lbs.

Part No.	Parallax No.	1	10
149032	27905	$84.95	$76.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 185

50MHz BASIC Stamp 2SX Module

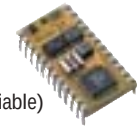
High-speed version of BS2-IC with additional RAM and EEPROM.

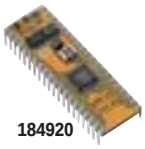
- Microcontroller: Ubicom SX28AC
- Program execution speed: 10,000 instructions/sec. • Volts required: 5-12 VDC
- EEPROM program size: 8 x 2k bytes, 4,000 instructions • Scratch pad RAM: 64 bytes
- Current draw @ 5V: 60mA run/200µA sleep
- Number of I/O pins: 16 + 2 serial
- RAM size: 32 bytes • Size: 1.2"L x 0.6"W

Part No.	Parallax No.	1	10	50
159775	BS2SX-IC 24-pin	$64.95	$59.95	$54.95

BASIC Stamp 2P Modules

In addition to the BS2-SX (above) features, includes new commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.


184911


184920

- Voltage requirements: 5-12VDC
- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes (12 I/O, 26 variable)
- Scratch pad RAM: 128 bytes
- EEPROM program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep

184911: Size: 1.2"L x 0.6"W x 0.4"H
- Number of I/O pins: 16 + 2 serial

184920: Size: 2.0"L x 0.6"W x 0.4"H
- Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	1	10
184911	BS2P24-IC 24-pin	$78.95	$71.95
184920	BS2P40-IC 40-pin	98.95	89.95

BASIC Stamp Prototyping Boards

164726

Optional boards for BS1-IC, BS2-IC and BS2SX-IC Stamps.

- Easy use of Stamp with prototyping area, 9-volt battery clips, I/O header,reset button, and programming connector

130921: Use w/ P/N 130892, left
- 3.0"L x 2.6"W

164726: Use w/ P/N 127693, 130892, left and P/N 159775, above • 4.0"L x 3.0"W

Part No.	Parallax No.	1	10
130921	27120	$19.95	$18.95
164726	27130	49.95	44.95

BASIC Stamp 2 OEM Kit

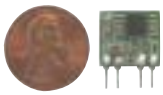
A through-hole version of the popular BASIC Stamp modules.

- 20-pin SIP, standard 0.1" spacing
- PC board includes labeled component locations with visible traces between parts
- PBASIC interpreter and EEPROM are socketed to allow for replacement
- Programmed using PBASIC DOS or Windows® editor just like the BASIC Stamp modules

Includes: PBASIC interpreter, EEPROM, resonator, DB-9, resistors and transistors

Part No.	Parallax No.	Price
183071	27291 BASIC® Stamp 2 kit	$48.95

DINAM Mini DC-to-DC Converters


194909

Power your stamp projects with AA batteries (recommend P/N 151087, 58).

194909: • Max. output (typical): 5VDC @ 72mA
- Output ripple (avg): <35mV

194917: • Max. output (typical): 5VDC @ 190mA
- Output ripple (avg): <35mV

194925: • Max. output (typical): 5VDC @ 110mA; 3.3VDC @ 130mA • Output ripple (avg): 35mV

194933: • Max. output (typical): 5VDC @ 80mA
- Output ripple (avg): <5mV

194941: • Max. output (typical): 5VDC @ 300mA
- Output ripple (avg): <35mV

Part No.	Product No.	Voltage Range	1	10
194909	MP-20	2 – 3.6VDC	$14.99	$13.49
194917	MP-40	1.2 – 5VDC	29.99	26.99
194925	MP-55	0.9 – 5VDC	34.99	31.49
194933	MP-55S	0.9 – 5VDC	31.99	28.99
194941	MP-300P	1.8 – 10.5VDC	34.99	31.49

Stamp Works Kit

This all-in-one kit takes you beyond theory, into a well-writtencollection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

Includes: Manual, BASIC Stamp Experiment Board, BS2-IC, 2x16 parallel LCD with custom cable, digital multimeter with 2 probes, wire cutter/stripper/pliers, three 100' rolls 22 AWG wire, screwdriver kit, photoresistor, 555 timer, 8-bit serial-to-parallel and 8-bit parallel chips, Dallas Semiconductor 1620 digital thermometer and real-time clock with 32.768MHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, stepper motor, servo, power supply, resistor assortment, capacitors, serial cable, CD-ROM and plastic box for parts
- Weight: 4.0 lbs.

Part No.	Parallax No.	1	10
184946	27297	$348.95	$314.95

Video Text Display Module

NTSC composite (1Vp-p, 75Ω)

- Serial data input: 2400-19.2kbps
- 30-pin SIMM form factor (socket supplied)
- Compatible w/Parallax Basic Stamp®
- Auto-switching genlock overlay or internal video generation
- Power supply: +8-16VDC @ 65mA input, 5VDC aux. output (regulated)
- Displays up to 308 characters (11 lines of 28)
- 12 x 18 pixel character pattern
- Size: 3.5"L x 1.1"H
- Asynchronous serial input only @ 9600bps

Part No.	Product No.	1	10	25
162051	BOBII	$79.95	$71.95	$63.95

In-System Programming Kit

This unique development tool programs Scenix SX chips in-system and performs in-circuit source-level debugging. Supports every Scenix Semiconductor chip that is commercially available.

- Includes SX Key software, SX Tech Board, 2 SX 28AC/DP 50 MIPS chips, 1 Murata 50MHz resonator, printed manual, CD ROM, power supply and serial cable
- DB-9 serial connector connects to RS-232 port using serial cable
- 4-pin connector on other side of tool plugs into the SX's Vss, Vdd, OSC1 and OSC2 pins
- Windows® 95/98/NT compatible
- Size: 0.5" x 1.7"

See Page 14 for Microcontroller Chips

Part No.	Parallax No.	1	10
176583	45180	$179.95	$169.95
162958	45170 without dubugger	79.95	71.95

50MIPS SX Microcontrollers

Part No.	Parallax No.	1	10
162940	SX18AC/DP (18-pin DIP pkg)	$4.95	$4.75
162931	SX28AC/DP (28-pin DIP pkg)	5.49	5.25

TechTools

PIC16C5X/XX Programmer Pack

Version 5.0, Windows® Software

Programs, reads & verifies PIC16CXX devices!

168807

- Supports PICs: 54, 55, 56, 57, 58, 620, 621, 622, 61, 62, 63, 64, 65, 71, 72, 73, 74 and 84
- Requires 40-pin ZIF adapter (P/N 133911 below)
- Programmer can be upgraded and adapters available depending on PIC
- Documentation on CD-ROM
- Weight: 1.8 lbs.

133911

Requires: IBM PC or compatible, serial port and Windows® operating system

Includes: PIC writer programming module, PIC writer serial protocol adapter, modular data cable, 12VAC @ 500mA power supply, PIC writer installation diskette, and Tech Tools CD-ROM

Part No.	Description	1	10
168807	PIC16CXX prog. pack	$199.95	$179.95
133911	40-pin ZIF adapter	49.95	44.95

The Microcontroller Application Cookbook

Woodglen Press This cookbook is a collection of interface circuits. It is a reference to circuits and interface code that can be customized for more advanced users. (248 pages, 2000)

- Size: 5.3" x 8.6"
- Weight: 0.7 lbs.

Part No.	Description	1	10
181681	Microcontroller Cookbook	$29.95	$26.95

Paralllax's "Stamps In Class" Series

Enabling Students to "Micro-Control" the World

Learn BASIC Stamp programming essentials from the experts. Each kit combines an educational book with the components needed to cover robotics, process control and microcontroller interfacing. The program emphasizes creative PBASIC programming in the classroom. For use with the "Board of Education" below.

What's a Microcontroller?

Introductory microcontroller programming tutorial introduces downloading PBASIC code to a BASIC Stamp, building a circuit on a breadboard, and simple circuits with LEDs and push buttons.

- 32-piece kit with book
- Requires "Board of Education" (lower right)
- Experience: beginner

Part No.	Parallax No.	1	10
171264	28152	$44.95	$39.95

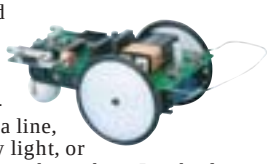
Industrial Control

The 198-page industrial control text is an educational tutorial on process control with the BASIC Stamp. High voltage methods of process control (on-off, differential gap, proportional-integral-derivative) are demonstrated. Written by Marty Hebel and Will Devenport of Southern Illinois University.

- 34 piece kit with book
- Experience: moderate

Part No.	Parallax No.	1	10
176575	28156	$49.95	$44.95

GrowBot Kit



This robot, designed for the hobbyist, experimenter and competitive robot person, may be programmed to follow a line, solve a maze, follow light, or communicate with another robot. It is built on a PCB with defined locations for electronic components. High-quality brushed aluminum chassis provides a sturdy platform for the servo motors and printed circuit board.

- I/O Components: LEDs, speaker, bumper, push button, photoresistors, resistors and capacitors
- Object Detection: Wire bumper
- Assembly tools needed: Soldering iron and solder, angled cutters, small Phillips screwdriver and 1/4" wrench
- Time required: 5-6 hours
- Power Supply: One 9-volt for BASIC Stamp, 4 AAs for motor control (not included)

Includes: BASIC Stamp 2 module, software, serial cable, assembly instructions, and BASIC Stamp Manual Version 2.0

Part No.	Parallax No.	1	10
162501	29100	$219.95	$209.95

See page 14 for microcontrollers.

Basic Analog and Digital

This educational tutorial covers 8-bit analog to digital and digital to analog conversion, resistive ladder networks, operational amplifiers and frequency measurement.

- 62-piece kit with book
- Experience: moderate

Part No.	Parallax No.	1	10
170122	28155	$39.95	$35.95

Robotics

Build a BOE-BOT by adding a chassis, servo motors, power supply, and proximity sensor to your Board of Education (below). Experiments cover basic programming and servo control, sensor interfacing using an infrared LED and receiver, light following, and communication between BOE-BOTs.

- Experience: moderate
- 84 piece kit with book

Requires: BS2 starter kit (P/N 140071, pg 169)

Part No.	Parallax No.	1	10
170131	28154	$119.95	$109.95

"Board of Education"

Each set of Stamps in Class curriculum requires a BASIC Stamp 2 with a Board of Education (known as a "BOE" by our customers). The BOE was designed in coordination with Parallax's educational customers to teach microcontroller programming and interfacing.

More training boards on pages 90-91.

- Mechanically interlocked power supply to prevent dual connection of wall-pack and 9-volt battery
- DB9 connector for BS2-IC programming and serial communication during run-time
- P0 - P15 I/O pins, Vdd and Vss connections brought adjacent to 2" x 1-3/8" breadboard area
- Traces on top of the board show connections between BS2-IC and breadboard connections

Includes: set of ten 10 color-coded 22 gauge wires

Part No.	Parallax No.	1	10
162536	28150	$54.95	$49.95

Order 24/7/365 Days a Year

Same business day shipping until 6:00 p.m. EST

Robotic Arm Trainer Kit ▲ *109-piece kit*

Five Axis of Motion

Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways. Five motors and joints allow flexibility.

Arm

Controller 157366

159345

- Max. length outwards: 14.2"
- Max. height upwards: 20.1"
- Max. lifting capacity: 4.6 oz.
- Shoulder movement @ 120˚ • Grip opens to 2" wide
- Elbow moving range @ 135˚ • Weight: 4.5 lbs.
- Wrist rotation clockwise or counter clockwise @ 340˚
- Rotates left to right at the base @ 350˚

Requires: 4 D batteries (not included)

Build It Yourself!

Part No.	Description	1	10
157366	Robotic arm kit	$69.95	$62.95
159345	Robotic controller software	79.95	69.95

Flex Sensor

- Max. resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering • Nominal resistance: 10kΩ

Part No.	Description	1	10	100
150551	Flex sensor	$10.95	$9.95	$8.49

MONDO•TRONICS

Electric Pistons™

Deluxe 5 Pack

The Electric Piston is a shape memory alloy actuator that pulls with up to one pound of force and contracts by 20mm. Typical activation requires one volt at five amps for two seconds. Plus, mount several pistons in parallel for more strength, and in series for longer strokes.

- 1 volt @ 5 amps

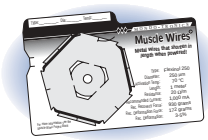
Includes: Five pistons, battery, leads and plans for four complete projects

Part No.	Description	1	10
141903	Electric piston pack	$39.95	$34.95

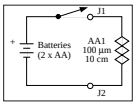
MONDO•TRONICS

Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight.



- Length: 1 meter



How it works… *Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.*

141348: Muscle Wires® Book & Deluxe Kit

- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® (below) and Project Book • 3 meters of wire

Includes: Crimps and instructions

* *Multiply by 0.0098 to get force in Newtons*
** *Cycles per minute, in still air, at 20˚ Centigrade*

Part No.	Descrip.	Wire Dia. (microns)	Linear Resistance (ohm/m)	Typical Current (mA)	Deform Weight* (grams)	Recovery Weight* (grams)	Typical Rate**	Pricing 1	Pricing 10
141321	100LT	100	150	180	28	150	33	$12.95	$11.65
141874	150LT	150	50	400	62	330	20	12.95	11.65
160055	375LT	375	8	2750	393	2000	4	16.95	15.25

Part No.	Description	1	10
141348	Muscle Wires® kit	$59.95	$53.95

Hyper Peppy Robot Kit ▲

This peppy little guy is a fast and zippy robot who will reverse himself and resume a different course when he comes in contact with an obstacle or detects a loud sound. Easy to assemble with basic hand tools and soldering iron.

Part No.	Description	Dimensions	Wt. (lbs.)	1	10
145496	Advanced kit	12.0"L x 7.0"W x 3.5"H	0.9	$23.95	$21.49

Obstacle Avoidance Robot Kit ▲

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself around them. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.

Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140821	Spider kit	12.0"L x 7.0"W x 3.5"H	1.2	$59.95	$53.95

Line Tracking Robot Kit ▲

Watch as this robot follows your black line. Utilizes infrared light to detect the line and control direction. This educational kit utilizes the same line follow principle of many industrial robots.

Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140839	Line tracker kit	12.0"L x 7.0"W x 3.5"H	1.1	$49.95	$44.49

Rockit Robot Kit ▲

Explore the fundamentals of robotics with this informative and entertaining robot kit. An intelligent robot with a touch/sound sensor, if it comes in contact with an object or hears a loud noise, it automatically reverses, then turns left.

- Pre-assembled printed circuit board • 57 piece kit

Requires: 2 AA batteries (recommend P/N 151087, pg 58)

Part No.	Description	Dimensions	Wt. (lbs.)	1	10
192567	Rockit robot kit	4.5"L x 5.0"W x 3.5"H	0.4	$23.95	$21.55

Deluxe Solar Power Car Kit ○

This deluxe aerodynamic solar powered car is loaded with fun and features.

- Dual power: powerful 1.4 volt/350mA solar cell or AA battery • Multispeed transmission
- Body can be painted or left clear to view mechanics
- Components can be used to create other projects

Part No.	Description	Wt. (lbs.)	1	10
147774	Triple action solar car kit	0.7	$39.95	$35.95

velleman

Electronic Ignition System ■ *24-piece kit*

This intermediate kit assists automobiles with:

- Better starting and smoother running
- Lower fuel consumption
- Lower servicing costs
- Less pollution

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120601	K2543	2.8"L x 1.4"W	0.4	$17.95	$15.95

Applied Robotics Book

Prompt Publishing Designed to give the beginner a thorough and complete introduction into the field of robotics with simple projects and easy-to-read explanations. Detailed and extensive schematics, programs, and descriptions guide you through challenges of building a working robot. (311 pages, 2001)

- Size: 7.4" x 9.2" • Weight: 1.3 lbs.

Includes: CD-ROM

Part No.	Description	1	10
185501	Applied Robotics Book	$29.95	$26.95

Part Number Color Code
New Sale Refurbished Closeout

High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Torque: 49 oz.-in. @ 4.8V
- Speed: 16 seconds to 60˚
- Can be operated by P/Ns 153648, 151001, pg 74 and 157059, see right
- Size: 0.8"W x 1.4"D x 1.6"H

Part No.	Product No.	Description	1	10
157067	14500	Robotic servo ..	**$19.95**	**$17.95**

Micro Robotic Servo

Perfect size for any micro robotic project such as robotic fingers or pincers.

- Power supply voltage: 4.8-6 volts
- Torque: 38 oz.-in.
- Speed: 10 seconds to 60˚
- Can be operated by P/Ns 153648, 151001, pg 74 and 157059, right • Size: 1.2"L x 0.48"W x 1.2"H

Part No.	Description	1	10
166369	Micro robotic servo	**$39.95**	**$35.95**

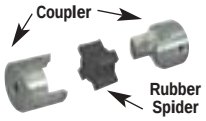
Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

- Power supply voltage: 4.8-6 volts
- Torque: 161 oz.-in.
- Speed: 19 seconds to 60˚
- Can be operated by P/Ns 153648 & 151001, pg 74 and 157059, see right

Part No.	Description	1	10
166351	Giant robotic servo	**$49.95**	**$44.95**

Spider Couplers



162288 (Coupler); 162000 (Spider)

- Used with motors
- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually

Part No.	Description	1	10	100
162288	.125" (3.18 mm) hub ...	**$1.19**	**$.99**	**$.65**
161998	.197" (5.00 mm) hub	**1.09**	**.89**	**.59**
162270	.250" (6.35 mm) hub	**1.19**	**.99**	**.65**
162000	Rubber spider	**.89**	**.69**	**.55**

Climax Spider Shaft Couplers

106614/106606:
- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"

138288:
- 2 set screws (10-32 x 1/8)
- Size: 0.75"L x 0.5"D

SALE

Part No.	Description	1	10	100
106614	.125" spider hub	**$.85**	**$.65**	**$.39**
106606	.250" spider hub	**.75**	**.55**	**.39**
106622	Rubber spider	**.75**	**.68**	**.61**
138288	.250" sleeve coupler	**3.95**	**3.49**	**2.95**

Ceramic Cylinder Magnet

Great for projects and experiments. .625"Dia. x .625"H.

Magnets cannot be shipped by air.

Part No.	Description	1	10	100	500
167100	Ceramic magnet	**$.49**	**$.44**	**$.40**	**$.36**

Radio Control System

- 75MHz • 1/4 mile range
- 2-channel proportional operation
- HP-2RNB mini AM receiver
- 2 HS-303 standard servos
- Size: 6.0"L x 5.5"W x 2.0"H
- Weight: 1.5 lbs.

Requires: 12 AA batteries

Part No.	Description	1	10
157059	Radio control system	**$84.95**	**$76.95**

Robot Drive Wheels

- Extremely high traction foam rubber compound
- 2 hubs: 1 set screw locking; 1 non-locking
- Size: 2.5"Dia. x 2.0"W

Part No.	Description	1	10
157227	Drive wheels (2 pc set)	**$27.95**	**$24.95**

8-Pitch Gears and Gear Set

- Works with DC motors with 0.08" shaft diameter
- Heavy-duty plastic construction • Pitch: 0.125"
- Bore size: 0.154" • Material: polyethylene resin

#**162392:** 0.15" bore to 0.070" bore

†**131801:** 20-piece gear set includes 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings

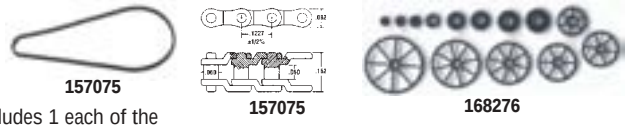
✻ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	Description	Shaft Bore	O.D.	Press Fit Shaft Dia.	Gear Dia.	1	10	100
162069	T10	10 teeth	0.151"	0.48"	0.156 (5/32)"	0.457"	**$.69**	**$.62**	**$.59**
162077	T20	20 teeth	0.151"	0.875"	0.156 (5/32)"	0.855"	**.69**	**.62**	**.56**
162085	T30	30 teeth	0.151"	1.27"	0.156 (5/32)"	1.239"	**.69**	**.62**	**.56**
162093	T40	40 teeth	0.151"	1.67"	0.156 (5/32)"	1.634"	**.69**	**.62**	**.56**
162106	T50	50 teeth	0.151"	2.07"	0.156 (5/32)"	2.016"	**.69**	**.62**	**.56**
162392#	BUSH1	Bushing	0.075"	—	0.078 (5/64)"	0.160"	✻	**.24**	**.22**

Part No.	Product No.	Description	1	10	50
131801†	GA1	Gear set – 20 piece (see description above)	**$7.99**	**$7.29**	**$6.49**

16-Pitch Sprocket Set and Chain

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.



168276: 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth at ⅛" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at ¼" bore size

Part No.	Product No.	Description	1	10	25
157075	C1227	Drive chain (12" long)	**$9.95**	**$8.95**	**$7.95**
168276#	8890	Sprocket set - 14 pieces (see description above)	**24.95**	**20.95**	**18.95**

Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

168284: 12-piece gear set includes 1 each of the following: 10 teeth at 3/32" bore size; 14 and 16 teeth at ⅛" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth at ¼" bore size

Part No.	Product No.	Description	1	10	25
157104	9999	1/4" bore aluminum mounting hub w/ set screws	**$4.95**	**$4.49**	**$3.95**
168284#	8892	Gear set - 12 pieces (see description above)	**39.95**	**34.95**	**31.95**

OWI®

Selectable Gear Box Kit ■

Great 35-piece kit for learning about gear ratios or to add a gear box to your robot project. See-through case has gear ratios from 6.8:1 to 807.93:1.

Part No.	Description	Dimensions	1	10
145509	Selectable gear box kit	2.5"L x 1.1"W x 1.5"H	**$14.95**	**$13.49**

Toll-Free Technical Support

Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

PIC Relay Controller Kit ■ *22-piece kit*

This is a good companion for any kit that needs additional amperage or micro-controlled relay function.

- Preset relay functions: on/off toggle mode, on/reset mode, fixed delay 0.5 second pulse stretch, fixed delay 10 second pulse stretch, variable time 1.5 to 14 seconds, variable time 11 to 24 seconds, 3 amp total output, and input and reset signal can be active hi or low

SALE

Includes: 12VDC@30mA wall transformer

Part No.	Product No.	Dimensions	1	10
181850	PRC-1	2.7"L x 1.8"W	**$24.95**	**$22.49**

velleman Universal Relay Card Kit ▲ *64-piece kit*

Shown with 16 relays, only 8 relays included

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

- Relay contact: 5A/220VAC
- TTL or CMOS inputs
- Contact rating: 12VDC/250mA

Requires: 220 or 125VAC power source

128910

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128910	K6714	8.3"L x 5.9"W	1.8	**$59.95**	**$53.95**
144186	VR15M121C relay (JZC-22F)		0.028	**3.25**	**2.92**

Motor Controller and Module Kits

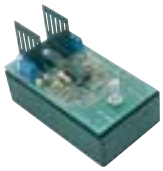
Motor Mind B Module

Motor control supports one or two line serial communication stream. DC motors with operating voltages as great as 30VDC and continuous currents of 2A can be controlled. An on board frequency counter has a range of 0–65,528Hz. Motor speed (254 steps) and direction can be controlled. Motors with tachometers or encoders may make use of the automated speed control function.

Part No.	Description	1	10
143802	9-pin motor mind B module	**$29.95**	**$26.95**

DC Motor Speed Control Kit

■ *35-piece kit*



- This kit uses Pulse Width Modulation to vary the speed of a DC motor and maintain torque
- For motors up to 100VDC/5A max.

Requires: 5-16VDC supply (recommend P/N 114825, pg 72)

Part No.	Description	Dimensions	1	10
127829	Motor control kit	3.6"L x 2.3"W x 1.2"H	**$29.95**	**$26.95**

Unipolar Stepper Motor Driver Kit

■ *29-piece kit*

- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Drives 5, 6 or 8 lead unipolar stepper motors
- Onboard 5VDC regulator

Part No.	Description	Dimensions	1	10
139109	Stepper motor	2.6"L x 1.9"W x 1.0"H	**$29.95**	**$26.95**

velleman DC to Pulse Width Modulator Kit ▲ *40-piece kit*

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

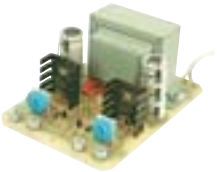
- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Operating voltage: 8 to 35VDC
- Minimum consumption: 35mA
- Maximum output current: 6.5A
- Efficiency: better than 90% at full load • Adjustable sensitivity: 2.5 to 35VDC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
120539	K8004	3.3"L x 1.9"W x 1.8"H	0.5	**$19.95**	**$17.95**	**$15.95**

Power Supply Kits

Dual Adjustable Regulated Power Supply Kit

■ *48-piece kit*



Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from ±5 to ±15VDC.

- Adjustable positive and negative supplies ±5 to ±15VDC, 175mA – 750mA per supply
- 120VAC input • LED on indicator
- PC board construction

Includes: Components and hardware

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
20626	JE215	5.1"L x 3.5"W x 2.0"H	2.1	**$22.95**	**$20.49**	**$18.49**

velleman 1 Amp Power Supply Kit ■ *12-piece kit*

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection.

- Output current max.: 1.5A
- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V

Requires: 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103 or equivalent, pg 54)

Part No.	Product No.	Dimensions	1	10	25
117621	K1823	2.1"L x 2.1"W	**$11.95**	**$10.95**	**$9.95**

velleman Universal Battery Charger/Discharger Kit

■ *85-piece kit*

Automatically charge/discharge NiMH and NiCad batteries to improve battery life.

- Charges current from 15mA to 750mA selectable
- Charges both Ni-MH and Ni-Cad batteries
- Usable battery voltage: 1.2/2.8/3.6/4.8/6.0/7.2/8.4/9.6 volts
- Quick charge in 52 min. • Normal charge in 14 hrs.
- Automatic discharge and charge cycle

Requires: 15VDC @ 1A transformer (P/N 191652, pg 73)

Part No.	Product No.	Dimensions	1	10
147598	K7300	3.13"Sq.	**$23.95**	**$21.49**

DC Voltage Monitor Kit ● *46-piece kit*

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 1/2V, or 1/4V steps. Monitor 8V or 5V in 1/4V steps. Great for boats, motor homes, model planes or race car Ni-Cads.

Part No.	Product No.	Dimensions	1	10
181833	VM-1	2.7"L x 1.3"W	**$8.95**	**$7.95**

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! **Details on page 185**

Part Number Color Code
New Sale Refurbished Closeout

Liquid Level Controller Kit ▲ *73-piece kit*

Controls the level of any container of liquid. Can replace the liquid sensors with temperature or light sensors for corresponding use.

- Alarm signal provided for desired applications

Requires: 12-14VAC @ 300mA minimum power supply (P/N 10081, pg 71)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
129154	K2639	4.1"L x 2.4"W x 1.0"H	0.5	$21.95	$19.95

Water Leak Alarm Kit ● *7-piece kit*

Alarms you of water overflows and leaks!

- Water sensor can be placed at a distance by cutting the board and using wires for connection
- Incorporated loud alarm buzzer

Requires: 9VDC battery (P/N 151095, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
157315	MK108	2.8"L x 1.8"W	0.1	$10.95	$9.95

Parking Radar Kit ■ *55-piece kit*

Parking in tight places can be difficult, but the unit can tell you when you have come within an adjustable preset distance of the object behind you.

- Detection range: 5cm – 1.5m; angle: 5°
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

Requires: 10-15VDC @ 16mA max (recommend P/N 100095, pg 72) or auto power plug (recommend P/N 115001, pg 60)

Part No.	Product No.	1	10	25
129120	K3502	$44.95	$39.95	$34.95

Ultrasonic Motion Detector Kit ■ *49-piece kit*

Detect Motion/movement from 4-7m away and trigger an alarm with this kit.

- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 4-7m away; 2nd board contains crystal controlled oscillator & all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H

Requires: 9V battery (recommend P/N 151095, pg 58)

Part No.	Description	1	10
125090	Ultrasonic alarm kit	$29.95	$26.95

Senix Distance Sensor Modules

134105

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105) or RS232 signal (P/N 151482).

- Sensing range: 4" to 60"
- Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H
- One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), recommend P/N 114825, pg 72

134105: • Output voltage: 0-10VDC
• Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
151482: • RS232 output

Includes: Disk and computer cable

Part No.	Description	Wt (lbs.)	1	10
134105	Sensor – voltage output	0.2	$159.95	$143.95
151482	Sensor – RS232 output	1.0	179.95	161.95

Toll-Free Technical Support
Just call us at 1-800-831-4242 or email us at Tech@Jameco.com

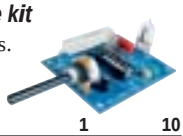
3-Channel Light Organ Kit ■ *80-piece kit*

Add a 3-channel dancing light display to your music. Each channel displays a different range of sound.

- Frequency ranges are adjustable
- Line or microphone input • Maximum load 2A per channel
- Each output has individual sensitivity control

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
131684	K8017	6.7"W x 5.6"D x 1.7"H	1.2	$59.95	$53.95

Stroboscope Kit ▲ *19-piece kit*



Make your own snapshots and "lightning" light effects. Flash frequency adjustable from 2 - 20Hz.

- Input: 110VAC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
117639	K5300	3.5"L x 2.6"W	0.5	$18.95	$16.95

Entertainment Light Computer Kit ▲ *122-piece kit*

This kit is a unique light producer for entertainment and display applications.

- 16 programs and 7 LED outputs
- Supply voltage for lamps: 24-240VAC

Requires: 7.5-9VAC @ 250mA power supply (P/N 100061, pg 71)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127600	K5201	5.4"L x 3.1"W	0.6	$48.95	$39.95

Flashing LED Sweetheart Kit ■ *46-piece kit*

This kit shows a beating heart. Great for decorations!

- Power consumption: 8mA

Requires: 8 to 15VDC wall transformer (P/N 100095, pg 72) or 9VDC battery (P/N 151095, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147555	MK101	2.5"L x 2.4"W x 1.2"H	0.1	$11.95	$10.95	$9.95

Flashing LED Kit ■ *23-piece kit*

Activates 2 flashing LEDs for applications such as model constructions. Adjustable flashing speed by potentiometers.

- 5.5" wire w/ 9V battery connector
- Minimum consumption: 4mA

Requires: 9VDC battery (P/N 151095, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147580	MK102	1.3"L x 1.4"W x 0.6"H	0.1	$6.95	$5.95	$5.35

Touch Switch Kit ● *28-piece kit*

Do away with noisy mechanical switches that wear out. Lightly put pressure on the touch switch and the lights, CD player, or other appliances come on. Touch again, and it goes off. Based on the LM555 timer running in monostable timing mode, as well as the CD4518 dual BCD up counter used as a flip-flop, this kit includes a relay driver transistor and a DPDT relay whose contacts are rated at 1.5A. You can switch on a 300W appliance.

Requires: 5VDC power supply

Part No.	Product No.	Dimensions	1	10
177084	EBTS-10	2.3"L x 2.8"W	$9.95	$8.95

Modern Electronics Soldering Techniques Book

Prompt Publishing Learn the art of electronics soldering. The author goes beyond the basic aspects of soldering and thoroughly discusses other key areas of electronics technology such as correct handling and identification of components. Also covered is the art of reading, converting schematics and improving your knowledge of test concepts. (293 pages, 2001)

Part No.	Description	Size	Wt.(lbs.)	1	10
185498	Modern Electronics	6.0"x9.0"	1.0	$24.95	$22.49

Crossbow

Accelerometers and Interface

141591 1-Axis and 141575 3-Axis Accelerometers
- Dynamic range and excellent frequency response
- Acceleration range: ±4g
- Shielded cable: 2'L pigtail • Size: 1.9"L x 1.0"W x 0.8"H

Requires: 5VDC power supply (not included – recommend P/N 164101, pg 71)

141575

141583: Digital Accelerometer Interface
- Measures acceleration, impact, tilt, vibration, etc.
- Simple digital interface for 1-axis and 3-axis
- Plugs into any RS232 port @ 38.4k baud
- 200Hz max. sampling rate • Size: 3.0"L x 2.5"W x 1.3"H

Requires: DB9 male to female cable (recommend P/N 25700, pg 163)

141583

Includes: User friendly graphical software and 9VDC @ 500mA power supply

Part No.	Description	Axis	Current	1	10
141591	CXL04M1	One	8mA	$109.95	$99.95
141575	CXL04M3	Three	24mA	249.95	219.95
141583	Digital interface card			249.95	224.95

Crossbow

Accelerometer Evaluation Board

Single Axis

Evaluation board for the ADXL105, single axis, 5g accelerometer.

Part No.	Product No.	Description	1	10
177295	ADXL105EB	Single axis	$49.95	$44.95

Crossbow

Accelerometer Evaluation Boards

Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.

177308

177308: features RS232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

Part No.	Product No.	Description	1	10
177287	ADXL202EB	Dual axis	$49.95	$44.95
177308	ADXL202EB-232	w/ RS232	119.95	107.95

Crossbow

Accelerometer-BNC Adapter

- Enables any Crossbow accelerometer without a regulator (the R option) to be interfaced directly to most standard data acquisition systems
- Molded plastic enclosure with three standard BNC female connectors and an on-off switch
- Compatible with oscilloscopes, chart recorders and other test equipment

SALE

Requires: 9V battery or external power

Part No.	Product No.	Description	1	10
177316	CXBNC	BNC adapter	$99.95	$71.95

PRECISION NAVIGATION, INC.

Vector 2X Compass Module

- 2˚ accuracy, 1˚ resolution • 5Hz sampling rate
- 3-wire serial output format (compatible with Motorola SPI and National Microwire) • Hard iron calibration
- Pin selectable BCD or binary output format
- Raw uncalibrated magnetometer output optional
- Master or slave capability for data clock generation

Requires: Power supply 5V @ 10mA (recommend P/N 112070, pg 71)

Part No.	Description	1	10	25
126703	Vector 2X module	$49.95	$44.95	$39.95

How to Test Almost Everything Electronic

TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

Part No.	Description	Size	Wt.(lbs.)	1	10
126199	How to Test Everything	7.4"x9.3"	1.3	$17.95	$16.15

velleman

Metal Detector ■ *22-piece kit*

- Proximity range adjustable to 8cm
- LED indicator; can use a buzzer as an option (P/N 105822, pg 87) • Dimensions: 2.1" x 2.1"

Requires: 9V battery (recommend P/N 151095, pg 58)

Part No.	Product No.	Wt. (lbs.)	1	10	25
129091	K7102	0.4	$12.99	$11.69	$10.59

Function Generator Kit ■ *21-piece kit*

Sine, Triangle and Square Wave

Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

- 21-piece kit (chip, components, PC board, hardware)

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626, pg 173)

Part No.	Product No.	Dimensions	1	10	25
20685	JE2206	4.1"L x 1.5"W	$24.95	$22.95	$19.95

ELENCO Transistor and Diode Tester Kit ■ *81-piece kit*

Transistor Mode: • Measures relative beta of two transistors
- Identifies NPN and PNP, PN or NP junctions
- Tests transistors in circuit with base or collector resistors as low as 100Ω

Includes carrying case

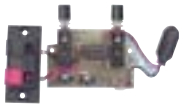
Diode Mode: • Indicates cathode or anode leads of diode
- Operates in circuit with resistors 5kΩ and above

Part No.	Dimensions	Wt. (lbs.)	1	10
119360	6.3"L x 3.8"W x 2.0"H	1.0	$26.95	$24.29

Capacitance Adapter Meter Kit ■ *27-piece kit*

- Measures capacitance range from 2pF to 2µF
- Works with multimeter w/ 2V range reading and 10MΩ input impedance

Requires: 9V battery (recommend P/N 151095, pg 58)

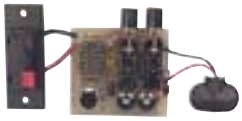


Part No.	Description	Dimensions	1	10
158001	CA-1 capacitance adapter	2.0"L x 1.8"W	$12.49	$11.29

Inductance Adapter Meter Kit ■ *22-piece kit*

- Low inductor range: 3µH to 500µH
- High inductor range: 100µH to 5mH
- Works with multimeter w/ 2V range reading and 10MΩ input impedance

Requires: 7.5 to 15VDC power supply (recommend P/N 151095 9V battery, pg 58)



Part No.	Description	Dimensions	1	10
158027	IA-1 inductance adapter	2.5"L x 1.7"W	$16.95	$15.25

RAM Pack B Module

SALE

Allows addressable access to 8kx8 bits of RAM. An autobaud detect function supports communication at 1200-19,200 baud rates. A software command allows the module to be expanded to handle 32kx8 RAM. The additional FIFO (first-in-first-out) buffer mode allows sequential storage of data in RAM without the need to address the RAM. RAM comes socketed for easy replacement with NVRAM or 32kx8 RAM.

Part No.	Description	1	10
143811	6-pin RAM Pack B module	$26.65	$23.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Universal Start & Stop Timer Kit ■ *18-piece kit*

- Timer for applications requiring a delay of up to 60 minutes
- Time interval adjustable between 0-15 minutes, without board modifications

Requires: 12VDC @ 55mA transformer (recommend P/N 100095, pg 70)

Part No.	Product No.	Dimensions	1	10	25
120619	K2579	1.5"L x 2.7"W	$13.95	$12.55	$11.35

1 Second to 3 Minute Timer Module

By operating a button, the relay will be activated for the selected time.

- Output contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095, pg 70)

Part No.	Description	1	10	25
147871	I-1 timer	$19.95	$17.95	$15.95

Clock Kits

Digital Clock Kit ■ *183-piece kit*

2.5" High 6-Digit Display

- Fast/slow set switches
- Time hold control switch
- Safe low input voltage: 9VAC
- 12 or 24 hour display switch
- Bright 2.5" high 6-digit red displays • Can be viewed from over 50' away
- Assembled kit shown below (P/N 109268)

Super-Bright LEDs!

105507 Kit: PC board, components, wall transformer and kit instructions – 183 total pieces. Case with red lens sold separately (109241)

109241: Enclosure for Digital Clock Kit

- Black satin anodized aluminum

Enclosure includes: Red lens, mounting hardware and easy-to-follow instructions

109241

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
105507	JE725KIT	17.5"L x 3.5"W (board)	1.2	$69.95	$62.95
109241	JE725CEAN	18.0"L x 5.3"H x 1.4"D	1.7	39.95	35.95

Assembled Digital Clock

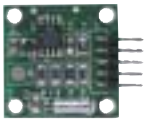
2.5" High 6-Digit Display

- Hour/minute hold switches • 8 ft. power cord
- Assembled JE725 digital clock above in black satin anodized aluminum case

Includes: 9VDC @ 800mA power supply

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
109268	JE725AEA	18.0"L x 5.3"H x 1.4"D	3.5	$135.95	$121.95

Pocket Watch B Module



Contains a real time clock, calendar and advanced timing features. Keeps track of seconds, minutes, hours, days, months, and years.

- For use with P/N 130892 - BS2-IC, pg 169
- Easy-to-use 1 or 2 wire interface
- Four types of user configurable alarms
- Externally accessible, precision timebase
- Standard TTL
- Easy-to-use SIP package
- Leap year compensation
- One-year warranty

Part No.	Description	1	10
145630	Pocket watch B module	$32.95	$29.95

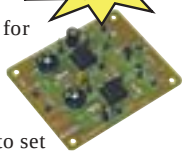
30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 185

Timer Debounce Kit ● *36-piece kit*

SALE



Based on the LM555 timer chip, a highly stable device for generating accurate time delays or oscillation. When a switch is turned on or off, mechanical bounce noise generates spurious pulses. When operated in mono-stable mode, the EBTD-9 prevents these noise pulses from adversely affecting your project. Use this circuit to set clocks or counters – any time you need a push-button switch. Or, run the kit in astable mode and learn how clock / timer oscillator circuits work.

Requires: 5VDC power supply

Part No.	Product No.	Dimensions	1	10
177076	EBTD-9	T2.3"L x 2.8"W	$9.95	$8.95

3 Second On to 1 Minute Off Cyclic Timer Module

By triggering the timer, the contacts will be engaged. Once this time has expired, the relay will remain in the off state for 3-60 seconds. It then restarts, repeating the on and off process until power is disconnected.

- Output by relay • Contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095, pg 70)

Part No.	Description	1	10	25
147846	I-10 timer	$23.95	$21.56	$19.39

Electronic Locks

MEMKey 4 x 5 Matrix Keypad Encoder Module

Fully programmable keypad encoder that supports either simple serial or the standard PC / AT communication protocol by using a jumper.

- PC/AT or serial output • Standard TTL levels
- Automatic or polled key reporting
- For use with P/N 130892 BS2-IC, pg 169

Includes: 64 bytes of user accessible EEPROM

Part No.	Description	1	10
163758	Keypad encoder module	$34.95	$31.95

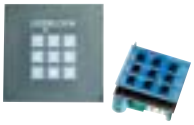
Electronic Combination Lock ■ *19-piece kit*

- Programmable 4-digit combination lock with separate 9 touch-pad board
- Output: 240VAC 12A relay controls external loads

Requires: 9V battery (P/N 151095, pg 66)

Part No.	Description	Dimensions	1	10
125129	Lock kit	3.0"L x 2.5"W x 1.0"H	$14.95	$13.95

Code Lock Kit ■ *67-piece kit*



- Switch an alarm on and off or open door locks
- 3000+ codes possible • LED indicates state
- Pulse or switch outputs • Relay contact rating: 5A/220V

Requires: 9-15VDC (P/N 163491, pg 70) or 8-12VAC (P/N 100061, pg 69) power supply

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127554	K6400	1.7"L x 1.8"W	0.5	$25.95	$23.95

Remote Control by Telephone ▲ *116-piece kit*

- Possible to turn on or off up to three devices (switching lights on-off; check alarm systems; water heater on-off; garage doors)
- Check conditions of a switch (open or closed)
- Protected by a user-defined code
- Pick up after 3 or 8 rings (selectable)

Requires: 12VAC @ 300mA (recommend P/N 101258, pg 69)

Includes: Relay for one output (10A/250VAC)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120678	K6501	4.1"L x 5.1"W	0.7	$69.49	$62.59

Infrared and RF Code Lock Transmitters and Receivers ■ ▲

- Use for car alarms, garage doors, door locks, lighting control, etc. • Over 8000 selectable codes
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)

117655

Requires: Transmitter:12V battery type V23G; receivers: 12-16VDC @ 100mA (recommend P/N 100095, pg 72)

Specifications:

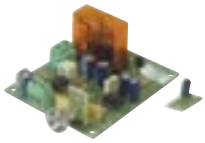
Transmitter	117647	117647	134543
Transmission	RF	RF	IR
Channels	2-ch	1-ch	1-ch
Range	100'	100'	23'
Asmb. difficulty	expert	expert	novice
Use w/ receiver	**173235**	**117655**	**134551**

134543

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
117647	K6706 2-ch transmitter (RF)	29	0.3	**$16.95**	**$14.95**
173235	K6727 2-ch receiver (RF)	75	0.5	**39.95**	**35.95**
117655	K6707A 1-ch receiver (RF)	75	0.5	**27.95**	**24.95**
134543	K6708 1-ch transmitter (IR)	16	0.3	**13.95**	**12.49**
134551	K6709 1-ch receiver (IR)	66	0.5	**28.95**	**26.95**

Infrared Switch Module

Produces an infrared beam, which when obstructed automatically connects the load.



- Output relay rated: 5A @ 200VAC
- Maximum range 3 meters • Size: 2.8"L x 2.2"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095, pg 72)

Part No.	Description	1	10	25
147811	RJ-1 photocell	**$39.95**	**$35.95**	**$31.95**

15-Channel Infrared Transmitter & Receiver ■

- Applications: remote on-off switch, alarms, garage door opener, etc.
- 15 independent channels
- Transmitter/receiver range: ±30 meters

120555

120555: Transmitter

Requires: 9VDC battery (recommend P/N 151095, pg 58)

120547: Receiver

- Each output can be a change-over or pulse contact switch • Output: 50V @ 500mA max.
- PCB dimensions: 2.8"L x 5.7"W

120547

Requires: 8-14VDC (recommend P/N 100095, pg 72 or 129314, pg 73)

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
120555	K6710 15-ch transmitter	37	0.8	**$59.95**	**$53.95**
120547	K6711 15-ch receiver	76	0.5	**44.95**	**39.95**

DC Controlled Dimmer Kit ▲ *37-piece kit*

This circuit is ideal for replacing an existing dimmer switch; can be used in a control application via P/N 128928 interface board, right.

- Supply voltage: 110V or 220-240V, 50 or 60Hz
- Can be used for 24VAC • DC control voltage: 0-10VDC
- Maximum control current: 2.25mA @ 12V

Part No.	Product No.	Dimensions	1	10	25
128901	K8003	3.0"L x 2.0"W x 1.8"H	**$23.95**	**$21.55**	**$19.49**

We'll Send It Today

99.7% Products Are In Stock!

Just place your order by 6PM EST for same business day shipment.

Infrared Remote-Control Receiver Modules

139889 131908 165008 176541

- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability
- 940nm wavelength • Size: 0.6"L x 0.6"W x 0.5"H

Part No.	Description	Voltage Input	1	10	100	1000
139889	37.9kHz, top view	5VDC @ 2mA	**$2.95**	**$2.49**	**$1.95**	**$1.49**
131908	38.0kHz, side view	5VDC @ 2mA	**2.95**	**2.49**	**1.95**	**1.49**
165008	40.0kHz, top view	5VDC @ 5mA	**2.95**	**2.75**	**2.25**	**1.95**
176541	56.8kHz, side view	5VDC @ 2mA	**1.95**	**1.75**	**1.25**	**.99**

Infrared Transmitter & Receiver Kit ● *26-piece kit*

Transmit a 40kHz modulated I-R signal to a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

- Transmitter size: 1.0"L x 0.8"W • Receiver size: 1.4"L x 1.2"W

Requires: 6 to 15VDC (recommend P/N 151095, pg 58)

Part No.	Product No.	Description	1	10
177092	IR-2	Transmitter/receiver	**$24.95**	**$22.49**

Light Sensitive Relay Kit ■ *20-piece kit*

Build a stable and advanced circuit that uses light to control a SPDT 10A relay.

- Dimensions: 2.4"L x 1.3"W x 1.0"H

Requires: 12VDC power supply (recommend P/N 100095, pg 72)

Part No.	Description	Wt. (lbs.)	1	10	25
136223	Light relay kit	0.1	**$9.95**	**$8.95**	**$7.99**

Computer Control Interface Kit ▲ *301-piece kit*

Connects to printer port without interruption of the printer. Works well in control applications such as the DC dimmer (P/N 128901, left) and infrared transit/receiver (P/Ns 120555 and 120547, left).

- 16 I/Os with opto coupler
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- Full opto-isolation with computer
- 3.5" driver disk w/ routines in C++, QBASIC, Turbo Pascal

Requires: DB25 cable (P/N 65787, pg 163)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128928	K8000	9.3"L x 5.3"W	1.7	**$139.95**	**$125.95**

IR LED Illuminator Kit ● *41-piece kit*

- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across

Requires: 12-15VDC power supply (recommend P/N 114825, pg 72)

Part No.	Description	Dimensions	1	10	25
157964	IR illuminator kit	2" Dia.	**$14.95**	**$13.49**	**$11.95**

650nm Line and Dot Laser Diodes

Class IIIa Laser Product

167214/143845/173243:
- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty

173243

167214: Dot (spot) laser module
- At 5M diameter of dot is 5mm, at 15M diameter of dot is 20mm

143845: Line laser module
- Laser line width: 1mm • Laser fan angle: 60˚

173243: Cross hair laser diode module
- Laser fan angle: 60˚
- Female 2.1mm power connector
- Size: 3.0"L x 0.9"D

143837: Module regulated power supply
- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.

143853

143853: Laser module mount
Built to hold laser diode on target.
- X-Y tilt, θ movement
- Tightening screw for tilt adjustment

Part No.	Description	1	10
167214	Dot laser diode module	$81.35	$73.19
143845	Line laser diode module	109.95	99.95
143853	Laser diode module mount ..	49.95	39.95
173243	Cross hair laser diode mod.	79.95	72.95
143837	Regulated power supply	19.95	17.95

ALPEC Laser Pointer Pens

Class IIIa Laser Product

- Range up to 500 yards
- 670nm red laser

153605:
- Color: black
- Size: 5.2"L x 0.4"Dia.

153605

Class IIIa Laser Product

127749:
- Silver brass
- Size: 5.4"L x 0.4"Dia.

Includes: 2 AAA batteries

127749

Part No.	Description	1	10
153605	Black pointer pen	$19.95	$17.95
127749	Silver pointer pen	21.95	19.95

Laser Diode Levels

- Line and dot laser models
- Skew is determined by built-in bubble
- Two magnets at the bottom of the unit for metal to magnet mounting

169762

169771

- Laser wavelength: 650nm
- Threaded mounting hole at the bottom of unit for tripod mounting
- Size: 5.4"L x 0.8"W x 1.4"H

Includes: Manual, 2 AAA batteries and plastic casing

Part No.	Product No.	Type	1	10
169762	TI3284E	Line laser.....	$59.95	$53.95
169771	TI3284D	Dot laser.....	54.95	49.95

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!

Glass-Lens Red Laser Diode and Line Generator

133292: Laser Diode

This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many typical laser applications.

133292

Class IIIa Laser Product

- Operating voltage: 4.0–6.0VDC (recommend P/N 112070, pg 71)
- Maximum output: 4mW
- Beam size at 7m: oval – 5mm x 8mm
- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator • Module size: 2.0"L x 0.5"W

134148

134148: Lens
- Adjustable focus range: 50 cm to ∞
- Back focal length: 1.5mm • Focal length: 8.0mm
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Fan angle: 60° • Length at 1 meter dist.: 1.70 m

Part No.	Description	1	10	25
133292	Glass laser diode...	$44.95	$39.95	$35.95
134148	60° generating lens	12.95	11.49	9.95

Laser Diode Module

Class IIIa Laser Product

- Operates on 3VDC @ <5mW
- 670nm wavelength
- Beam diameter: 3.2mm
- Working distance: over 50 meters/yards (daylight), 200 meters/yards (dark)
- Size: 0.9"L x 0.3"Dia. • One-year warranty

Part No.	Description	1	10	25
131203	Laser module, brass	$39.95	$35.95	$32.95

Laser Diode and Accessories

Class IIIa Laser Product

182932: Laser Diode
- Optical output power: ≤5mW maximum
- Operating current: 30mA
- Operating voltage: 2.6V maximum
- Lasting wavelength: 650nm typical
- 5.6mm packaging size
- Beam divergence of 11 degrees from center line maximum

182932

126244

126244: Collimating lens housing
161736: Laser driver w/ regulator
- Input voltage: 2.6-6VDC
- Input current: 40mA

161736

Part No.	Description	1	10	25
182932	650nm laser diode	$19.95	$17.95	$15.95
126244	Lens housing.....	7.95	6.95	6.25
161736	Laser driver	7.95	6.95	6.25

ALPEC Laser Pointer with Key Ring

Class IIIa Laser Product

- Range up to 150 yards
- 650nm red laser
- Color: silver
- Size: 2.1"L x 0.5"Dia.
- One-year warranty

Includes: 2 coin cell batteries

Part No.	Description	1	10
153613	Laser pointer w/ key ring	$16.95	$14.95

9.8' Optical Voice Link Kit

This kit is the ideal introduction to the science of light transmission through 9.8' optical fiber.

- Weight: 0.6 lbs.

Requires: 9V battery, recommend (P/N 151095, pg 58)

Part No.	Description	1	10
169922	9.8' Optical Voice Link Kit	$49.95	$44.95

Educational Communication Kit

Explore fiber optic technology using this great hands-on educational product. This 3' digital link can also be used to construct high-voltage isolation for telephones, modems and computers.

Includes: 3' Optical Fiber Cable

Part No.	Description	1	10
169906	Ed. Communication Kit	$16.49	$14.89

Fiber Optic Designer's Kit

Simplex Kit

This "active link" interfaces with all TTL / CMOS logic and requires a single +5 volt power supply (recommend P / N 164101, pg 71). It includes 32' (10m) of 1000µm diameter plastic optical cable; 4 efficient dry, non-polish connectors, 2 bulkhead interfaces, 2 splices; 1 integrated detector and 1 emitter; and 2 top-quality printed wiring boards. Full instructions and technical data sheets complete the package.

Part No.	Description	1	10
169893	Fiber Optic Kit	$69.95	$62.95

Lab Course and Lab Kit

Experiment guide contains nine fiber optic experiments. Kit contains all the fiber optic and electronic components needed to complete the experiments.

Experiments Include:
- Making a light guide • Fiber optic transmitter
- Fiber optic cable transmission
- Characteristics of connectors and splices
- Index-matching procedures • Receiver design
- Speed of opto-electronic devices
- Fiber termination techniques • Weight: 0.7 lbs.

Part No.	Description	1	10
169914	Lab Course and Lab Kit ...	$44.95	$39.95

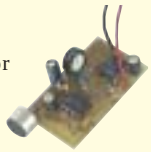
Fiber Optic Cable-Cutting Tool Kit

Kit contains fiber optic stripper, 25W hot knife professional fiber cutter, water dispenser, rubber pad, 600 grit and 3µm polishing film, replacement blades, ST-connector fiber polishing puck, rugged storage container and instruction booklet. • Weight: 2.5 lbs.

Part No.	Description	1	10
170034	Fiber Optic Tool Kit	$149.95	$134.95

Super Snooper Big Ear Audio Amplifier Kit

■ *17-piece kit*



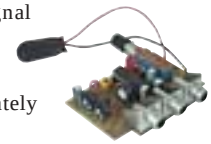
Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube, to isolate unwanted noise and make a directional microphone.

- Operating voltage: 9VDC (recommend P/N 151095, pg 58)

Includes: Instructions, outputs for speakers or headsets and schematic

Part No.	Dimensions	1	10	100
151204	1.8"L x 1.0"W x 0.6"H	**$10.49**	**$9.49**	**$8.49**

FM Stereo Transmitter Mini Kit ■ *37-piece kit*



Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76–108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095, pg 58)

Part No.	Description	Dimensions	1	10
151239	FMST-100 stereo kit	2.7"L x 2.0"W	**$29.95**	**$26.95**

velleman FM Transmitter ■ *26-piece kit*

Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

- Integrated pre-amplifier (sensitivity 5mV)

Requires: 9-12VDC power supply (recommend P/N 20626, pg 173)

Part No.	Product No.	Dimensions	1	10	25
117604	K1771	1.8"L x 2.8"W	**$12.49**	**$11.29**	**$10.19**

One-Chip AM Radio Kit ■ *39-piece kit*

- Uses an IC that performs as an RF amp, detector & AGC in an AM radio

Requires: 9V battery (recommend P/N 151095, pg 58)

Part No.	Description	Dimensions	1	10	25
125161	AM radio kit	4.0"L x 1.3"W x 0.5"H	**$15.49**	**$13.95**	**$12.59**

TV Notch Filters Mini Kit ■ *33-piece kit*

Eliminates unwanted TV channels or interference that alters sound and video. Works on cable channels 2 to 22 and 97 to 99.

Part No.	Description	Dimensions	1	10
151167	DF-222 TV filter kit	3.2"L x 0.9"W	**$15.95**	**$14.49**

velleman AM/FM Antenna Amplifier Kit ■ *23-piece kit*

This kit may make the difference in your reception quality where terrain and buildings cause signal deflection.

- Supply voltage: 12-15VDC @ 1-3mA
- Gain 22dB (10MHz to 150MHz)

Includes: Metal casing to store amp

Part No.	Product No.	Dimensions	1	10
129146	K2622	3.4"L x 1.4"W x 1.0"H	**$14.49**	**$13.15**

velleman 10 LED Mono VU Meter Kit ■ *36-piece kit*

- Instant visualization of audio signal levels
- Easy hook up to a LINE level (LOW input) signal source
- Special input (HIGH input) is provided, which allows direct connection to a speaker output
- Frequency range: 20Hz to 30kHz
- Dot or bar display mode selectable

Requires: 15VDC @ 300mA max. power supply (P/N 189982, pg 73)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147643	K4304	2.7"L x 1.4"H	0.3	**$22.39**	**$19.99**

velleman Universal Mono Pre-Amplifier ■ *17-piece kit*

For audio applications with insufficient input signal.

- Output impedance: 1kΩ • Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626, pg 173)

Part No.	Product No.	Dimensions	1	10	25
117612	K1803	1.2"L x 1.8"W	**$8.95**	**$7.95**	**$7.25**

1 Watt Amplifier Kit ■ *9-piece kit*

Amplifies audio signals for an 8Ω speaker. Use on P/N 125111 and P/N 147838.

- Ideal part for larger projects & battery powered circuits
- Circuit designed around a single TDA7052 IC
- Battery and battery snap not included (recommend P/N 151095 and 109153, pg 58)
- Drives 8Ω speaker (not included – recommend P/N 135773, pg 88)

Part No.	Description	Dimensions	1	10	25
125111	1 watt amp kit	.3"L x 1.1"W x 0.9"H	**$7.95**	**$7.15**	**$6.45**

Super Mini 2.5W Audio Power Amplifier ■ *27-piece kit*

This circuit has incredibly tiny dimensions. The IC has a pre-amplifier and power amplifier, which can be used separately by cutting a jumper.

- Operating frequency: 60Hz to 15kHz
- Max. output power: 2.5W (4Ω, 12V)
- Short circuit/thermal overload protection

Requires: 4.5-15VDC @ 400mA power supply (recommend P/N 114825, pg 72)

Part No.	Product No.	Dimensions	1	10	25
127175	K2637	1.7"L x 1.3"W x 1.1"H	**$10.95**	**$9.95**	**$8.95**

17.5-Watt Bridged Amplifier Kit

○ *17-piece kit*

- Drives 3-8 ohm speakers (2 recommended for stereo)
- Based on the Hitachi HA13118 dual amplifier IC

Requires: 12VDC supply (recommend P/N 100095, pg 72)

Part No.	Description	1	10
136207	17.5 watt amplifier kit	**$19.95**	**$17.95**

CEBEK 20-Watt RMS Amplifier Module

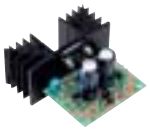
- Input signal: 250mV • Maximum current: 2A
- Output impedance: 4-8Ω (mono)
- Terminals: .100" matching disconnect solderless terminals
- Size: 2.8"L x 2.8"W x 1.6"H

Requires: Power supply: 12V @ 2A (recommend P/N 143714, pg 69)

Part No.	Description	1	10
147838	E-11 mono amplifier	**$24.95**	**$22.49**

velleman Stereo 30-Watt Power Amplifier

■ *38-piece kit*



General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4Ω or dual 10W @ 8Ω
- Frequency bandwidth: 7Hz to 60kHz (-3dB) • Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864, pg 55)

Part No.	Product No.	Dimensions	1	10	25
129138	K4003	2.8"L x 2.0"W	**$29.95**	**$26.95**	**$24.49**

velleman 7-Watt Mono Amplifier Kit ■ *22-piece kit*

- Music output power: 7W/4Ω
- RMS output: 3.5W/4Ω & 2W/8Ω
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

Requires: 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803, pg 73); speakers

Part No.	Product No.	Dimensions	1	10	25
127255	K4001	2.2"L x 1.4"W	**$13.95**	**$12.49**	**$10.95**

Part Number Color Code
New Sale Refurbished Closeout

Pink Noise Generator Kit ■ *34-piece kit*

Use this generator to analyze the acoustic properties of a room.

- 33-bit shift register • Pink noise filter: -3dB per octave
- Clock frequency from 30kHz and 100kHz
- Output voltage: 150mV RMS @ 40kHz

Requires: 9-12VAC or 12-15VDC @ 5mA transformer (recommend P/N 100061, pg 71 or 129314, pg 73)

Part No.	Product No.	Dimensions	1	10
131705	K4301	2.8"L x 1.6"W	$15.49	$13.95

Sound Generator Kit ■ *61-piece kit*

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns • Push-button keyboard

Requires: 8Ω/1 watt speaker (recommend P/N 102031, pg 43); 9V battery (recommend P/N 151095, pg 58)

Part No.	Product No.	Dimensions	1	10
127562	K4401	2.8"L x 2.8"W	$29.95	$26.95

Metronome Kit ● *27-piece kit*

- Adjustable volume and beats/minute • LED beat indication
- Incorporated speaker • On/off switch on board

Requires: 9VDC battery (P/N 151095, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
157331	MK106	2.4"L x 1.6"W	0.1	$16.95	$14.95

Light Sensitive Electronic Cricket Kit ■ *26-piece kit*

Sounds like a cricket when it gets dark!

- Adjustable cricket effect, tone and light sensitivity
- Minimum consumption: 9V/5mA

Requires: 8-15VDC power supply (P/N 100095, pg 72) or 9VDC battery (P/N 151095, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147547	MK104	2.5"L x 1.7"W x 1.6"H	0.1	$14.95	$13.49	$11.95

Siren Kit ● *20-piece kit*

- Oscillator is off until you press the switch, then a rising tone is produced until a steady value is reached
- If switch is released, tone starts dropping until it cuts off
- Circuit designed around a dual op amp connected as an oscillator and driver

Requires: 9V battery (recommend P/N 151095, pg 58)

Part No.	Description	Dimensions	1	10	50	100
125137	9V siren	2.0"L x 0.8"W x 0.5"H	$6.95	$6.25	$5.59	$4.95

Train Sound Generator Kit ● *11-piece kit*

- Produces 4 train sounds by switch selection
- Components supplied for operation on 3VDC (includes battery holder for 2 AA batteries), but circuit will operate from 2.4-6VDC (recommend P/N 151087 2 each, pg 58

Part No.	Description	Dimensions	1	10	25
125170	4 train noises	1.1"L x 0.6"W x 0.2"H	$9.49	$8.59	$7.69

Electronic Watchdog Kit ■ *104-piece kit*

- Reacts to environmental noise with adjustable sensitivity
- Choice of 2 different dog barking sounds
- Realistic simulation through random generator
- Can connect to other trigger detectors

Requires: 2-8VAC power source or 9-12VDC @ 500mA (P/N 114825, pg 72) power supply

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127597	K2655	5.6"L x 2.9"W	0.5	$39.95	$35.95

Sweet-16 Phone Tone Decoder Kit ■ *19-piece kit*

Detects dual tone multifrequency (DTMF) data, those sounds you hear when pushing buttons on your phone. Each individual button when pressed sends a unique voltage to the printed circuit board which activates a circuit on or off. 16 different touch tones, 12 of which are on a normal phone; special key pads have 4 additional buttons (A, B, C, D). Decoder gives an output voltage for all 16 touch tones.

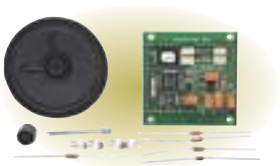
Part No.	Product No.	Dimensions	1	10
181876	TT-16	2.8"L x 2.2"W	$34.95	$31.95

Speech Recording & Recognition Kits

KIT ASSEMBLY EXPERIENCE LEVEL: ● = Beginner ■ = Intermediate ▲ = Expert

Interactive Speech Recognition Kit ■

Voice Direct 364 is a speaker dependent speech recognition module, allowing training of up to 60 words or phrases in slave mode, or 15 words or phrases in stand alone. This kit maps spoken commands to system control functions. Each time one of the words is recognized,output pins on the module are toggled high for 1 second.



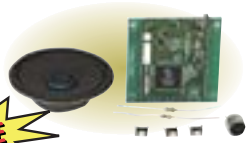
Upgraded version of P/N 162691

Includes: Voice Direct 364 module, Quick setup guide, Microphone element, Speaker (2.25" Dia., 8Ω), 4 microswitches, and a passive component selection to configure the module

Part No.	Description	1	10
173489	Speech recognition kit	$59.95	$53.95

VoiceDirect Speech Recognition Kit ■

Gives you the ability to deliver voice recognition to your product with minimal programming effort.



SALE

- Speaker-dependent speech recognition
- Minimal external components
- Program and recognize up to 15 words
- 99% recognition up to 3.2 seconds
- Size (module): 2.0" square PC board

Includes: Module, speaker, 3 switches, microphone cartridge & manual

Part No.	Description	1	10
162691	Speech recognition kit	$49.95	$44.95

Speech Recognition Circuit Kit ▲ *41-piece kit*

- Includes a PCB, keypad, digital display, microphone and necessary components • External RAM support
- Single chip voice recognition CMOS LSI
- Speaker dependent • Microphone support
- Max. 40 word recognition at 0.96 seconds word length
- Min. 20 word recognition at 1.92 seconds word length
- PCB dimensions: 4.8"L x 4.4"W • Keypad dimensions: 2.8"L x 2.8"W

Requires: 9V battery (recommend P/N 151095, pg 58)

Part No.	Product No.	Description	Wt. (lbs.)	1	10
141401	HM2007U1	Speech kit	0.6	$109.95	$99.95

Voice Activated LEDs Kit ■ *33-piece kit*

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max. • Adjustable sensitivity

Requires: 8-15VDC power supply (P/N 100095, pg 72) or 9VDC battery (P/N 151095, pg 58)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147571	MK103	2.5"L x 1.6"W x 1.4"H	0.1	$9.95	$8.95	$7.49

Digital Voice Module

- Selectable 16k/32k/44k bps sampling rate
- 0.5W audio amp on board with volume control
- All components soldered on board • Plays 16 messages • 1M DRAM on board
- Power requirements: 6-12VDC, 200mA (P/N 100095, pg 72)

Part No.	Product No.	1	10	25
124871	DVM58D	$79.95	$71.95	$64.75

A

3M® PRODUCTS 83, 85, 102
A/D CONVERTERS 10
ACCELEROMETER 175
ADAPTERS
- Audio/Video 168
- BNC 151
- Keyboard 162, 164
- Modular Telephone 158
- Monitor 150, 164
- Network 158
- Null Modem 164
- PLCC 90
- SCSI 150, 162
- Serial 164
- Single Binding Post to BNC 111
- SMA/SMB 152
- Telephone 158
- Token Ring 146
- USB/Fire Wire 148

ALLIGATOR CLIPS/CONNECTORS 110
AMPHENOL® 151, 152, 156
ANALOG DEVICES 13
ANTI-STATIC EQUIPMENT 102, 107
APC® 142
APEM® 35, 36
APPLE®/MACINTOSH® PRODUCTS
- Adapters 150
- Batteries 150
- Cables 150
- Floppy Drives 150
- Keyboards/Mice/Trackballs 137, 150
- PC to TV Converters 168
- Power Supplies 150
- Software 143
- Testers 140
- USB Products 148, 149

ATEN® 138, 146, 148, 149, 160, 161
ATMEL 8
AUDIO EQUIPMENT
- Amplifiers 179
- FM Transmitters 179
- Headphones 88, 89, 168
- Microphones 89, 168
- RCA Cables 88, 163
- Sound Cards 168
- Speakers 88, 89, 168
- Stereo Adapter 60

AUTOMOBILE POWER INVERTERS 60
AUTOMOBILE PLUGS 60

B

BALUN, COAX NETWORK 151
BANANA PLUGS 110, 111
BASIC STAMP CONTROLLERS 169, 170
BATTERIES & ACCESSORIES
- Batteries 58, 59, 150
- Holders & Snaps 58
- Laptop 59
- Rechargable 58

BELKIN 159
BINDING POSTS 111
BK PRECISION® 119, 121
BLOWERS ....(See Fans)
BNC CABLES/CONNECTORS/ADAPTERS 110, 111, 151-153, 158
BNC CONNECTOR REMOVAL TOOL 99
BOARDS ....(See Cards)
BOCA SEMICONDUCTOR 16
BOOKS 50, 100, 108, 112-114, 127, 128-130
BOTTLE, PUMP 102
BOXES 85, 86, 87
BRACKETS/MOUNTING RAILS 62, 135,140
BREADBOARDS 90, 91
BREAKOUT BOXES 116
BUFFER, PRINTER 160, 161
BUG BOXES AND TRAYS 85
BUZZERS 87

C

CABINETS/ENCLOSURES 23, 85, 86, 126
CABLES, ASSEMBLIES AND BULK
- Apple Network® 150
- Apple®/Mac Printer Extension & Modem 150
- Audio 135, 163
- BNC 110, 153
- Break-Out Box 116
- Category 5 (UTP) Network 159
- Centronics 163
- Coaxial 153
- DB25-Pin Extension 163
- Extension 150, 163
- F-Type Coaxial 153
- Fiber Optic 157, 162
- Floppy Drive 135, 162
- Hard Disk Drive 135, 162
- IEEE 488/1284/1394 Cable 162
- Keyboard 160, 162
- Management 82, 126
- Modular Telephone 158
- Monitor 160, 163, 164
- Mouse 160, 163
- Network 81, 150, 159
- Null Modem 164
- Power Cords 56, 57, 65, 69, 70, 81
- Printer 148, 150, 163
- RCA 163
- Ribbon 81, 135, 162, 163
- SCSI 150, 162
- Serial 162, 163, 164
- Shielded 81, 163
- SMA/SMB 153
- Switch Box 160, 164
- Telephone 158
- Testers 115, 116
- Ultra DMA 66 135
- Universal Serial Bus (USB) 148
- Video, RGB 163
- Wireless 167

CABLE CRIMPERS 97, 98
CABLE MARKER 83
CABLE SLEEVE 83
CABLE STRIPPERS 97, 98
CABLE TESTERS 115, 116
CABLE TIES & CLAMPS 82, 83, 126
CAIG® CHEMICALS 107
CALIPERS 94
CAMERAS AND ACCESSORIES
- Antennas/Boosters 167
- CCD 165, 166
- Digital, USB 143
- Dome 166
- Enclosed 143, 165, 166
- Enclosures 167
- Infrared 166
- Lenses 165
- Mounting Brackets and Devices 167
- Switcher 167
- Transmitters/Receivers 167
- USB 143
- Wireless 143, 167

CAPACITORS
- Assortment/Kits/Grab Bags 47, 49
- Ceramic Disc 22
- Dipped Tantalum 22
- Electrolytic, Axial 20
- Electrolytic, Large Can Aluminum 21
- Electrolytic, Radial 21
- Kits 47, 49
- Memory Back-Up 23
- Monolithic, Ceramic 22, 23
- Mylar 22
- Silver Mica 23
- SMT, Ceramic Chip/Alum Electrolytic 20, 23
- Tantalum 22, 23
- Trimmer, Ceramic 23

CARDS, COMPUTER
- Camera Boards 165
- Controller 144
- Data Acquisition 123-125
- Diagnostic 134
- Embedded CPU 126
- Fan 139
- Fax/Modem 145
- Game 133
- Graphics 133
- Hard/Floppy Disk Drive Controllers 144
- Input/Output 146-147
- Network 144
- Oscilloscope 113
- Parallel 146, 147
- Printer 146, 147
- Programmer 169, 170
- Prototyping 90
- SCSI 144
- Serial 147
- Sound 168
- USB 149
- Video Capture 143

CD-ROM & ACCESSORIES 138
CELLULAR PHONE CHARGER 60
CHEMICAL CLEANERS & ACCESSORIES 107
CIRCUIT BOARD MOUNTING HARDWARE 84, 85, 86
CIRCUIT BOARDS 90-93
CLAROSTAT® 25
CLEANERS/DEGREASERS 107
CLIPS
- Alligator 110
- Battery 58
- Test 110

CLOCK CHIPS 12
CLOCK MODULES 14
CLOCK/TIMER KITS 176
CLOCKS/TIMERS 122
COMPASS, MODULE 175
COMPONENT ASSORTMENTS
- SMD Resistors 23
- Carbon Film Resistors 24
- Headers, Housings & Pins 51

COMPONENT CABINETS 23, 85
COMPUTER
- Accessories 58, 135
- Boards/Cards 123-126, 132-134, 139, 144-147, 149, 168
- Brackets 135
- Cables, Internal/External/Network 134, 135
- Cameras 143, 165, 166
- Cases/Enclosures 126, 134
- CPU Fans 80
- CPUs/MPUs 12
- Data Acquisition, Control Cards/Software 123-127
- Drives, Floppy/Hard 138
- Fans 139
- Hardware/Brackets/Rails 135
- Industrial 125-126
- Keyboards 126, 136-137
- Keypads 137
- Kits/Grab Bags 47-48
- Laptop Batteries 59
- Math Coprocessors 12
- Memory Chips 11
- Mice 137
- Monitors 126, 140
- Motherboards 132-133
- Oscilloscope Cards 113
- Other Cards 132, 134
- Pentium® II Integrated Retention Modules 12
- Power Cords 56, 57
- Power Supplies 68, 131
- Prototype Boards 90, 92
- SIMM to SIMM Converter Card 11
- SIMMs & DIMMs 11
- Trackballs 137
- Video Cards 133
- Video RAM 11

CONNECTORS
- Amphenol® 151, 152
- ATX 154
- BNC 151, 153
- Card-Edge, Cable, IDC, PC Mount 53
- Centronics, Cable, IDC, PC Mount, Right Angle 156
- Centronics, Parallel Interface 156
- Coax 151, 152
- D-Sub, Hardware/Hoods/Crimp Housing 155
- D-Sub, IDC/Solder Cup 155
- D-Sub, PC Mount, Right Angle/Straight 155
- DIN 156
- Gender Changers 164
- Headers 51, 52
- Housings, Square Pin 52
- IDC Plug and Socket/ Wire 53, 154, 155, 156
- Kits, Header/Connector 51
- MCX/MMCX (AMPHENOL®) 152
- Modular/Telephone 158, 159
- Molex® 154
- Multimeter w/ RS232 Interface 119
- Network 145
- PCB 53
- Pins, Crimp/Power 52, 154
- Power 55, 60, 154
- RCA Jacks 152
- SCSI II/III 156
- Shorting Blocks 52
- SMA/SMB 152

Part Number Color Code
New Sale Refurbished Closeout

Telephone 158, 159
Terminal Blocks 53, 62
Token Ring 146
USB 154
CONTROLLER CARDS HD/FDD 144
CONTROLLERS
Embedded 126
Micro 13, 14, 129, 170
Motor 74, 123, 173
PIC 173
CONVERTERS 125, 146, 148, 161, 168
CONVERTERS DC-DC 61
COOLERS, THERMOELECTRIC/CHIPS 139
CORDS, POWER 56, 57
COUPLERS, SHAFT 172
CPUs 12
CRIMPING TOOLS 97, 98
CRYDOM RELAYS 47
CRYSTALS/OSCILLATORS 27
CURRENT CLAMP METER/MULTIMETERS 121

D-E

D/A CONVERTERS 10
DALLAS SEMICONDUCTORS 13
DARLINGTON TRANSISTORS 16, 17
DATA ACQUISITION 123-127
DATA BOOKS 128-130
DATA LOGGER 127
DC-AC INVERTERS 60
DC-DC CONVERTERS 61
DC MOTORS 75, 76, 77
DC POWER SUPPLIES 61-68
DESIGN SOFTWARE 91, 93
DESOLDER STATION & EQUIP. 104-106
DIGITAL I/O MODULES/CARDS 41, 123-126
DIGITAL LAB & TRAINER 91
DIGITAL MULTIMETERS 112
DIGITAL OSCILLOSCOPES 112
DIGITAL PANEL METERS 33
DIN-RAIL PRODUCTS 62
DIODES
General Purpose 19
Grab Bags 47
Infrared (LEDs) 34, 166
Kits/Grab Bags 47, 49
LED Displays 31
LEDs 29-31
Rectifiers 18, 19
Surface Mount 19
Switching 20
Zener 19
DIP SWITCHES 38
DISPLAYS, LED & LCD 31-33
DRILL BITS 99
DRIVES, COMPUTER
Accessories 134, 135, 138
Cases/Enclosures 134, 138
CD-ROM 138
Floppy 138
Hard 138
ZIP 138
EDUCATIONAL ELECTRONIC LABS 91
EEPROMS 10
ELAB® 14
ELECTRONIC KITS 169-180
EMBEDDED PROCESSOR BOARD 126
ENCLOSURES 85, 86, 87, 126
ENTRELEC® 53, 54, 75, 84
EPROM ACCESSORIES 10, 11
EPROM PROGRAMMERS/ERASERS 109
EPSON® 14
ESP® SMT TOOLS & ACCESSORIES 99
ETHERNET PRODUCTS 145, 149
EXTECH® 115, 116, 117, 122

F

FANS
AC Tube-Axial 80
Brushless DC 78, 79
Cards 139
Cords 80
Cooling System 80, 139
CPU Heat Sink w/ Fan 80, 139
Filters 80
Guards 80
Hard Drive 139
PC 139
FAX/MODEMS 145
FEET 85, 86
FIBER OPTICS 157, 162, 178
FILES 94
FILTERS, POWER ENTRY/LINE/AC PLUG 55
FILTERS, DSP 128
FIREWIRE CABLES 162
FLASHLIGHTS 94
FLOPPY DRIVES/ACCESS. 138
FLUKE® TEST EQUIPMENT 116
FLUORESCENT LAMPS 34
FLUX, ROSIN PASTE 106
FREEZER, AEROSOL 107
FREQUENCY COUNTERS 114
FUME EXTRACTOR & ACCESS. 104
FUNCTION GENERATORS 114
FUSES, FUSE HOLDERS & FUSE CLIPS 59, 62

G-H

GALs 11
GAME CARD 133
GEARS 172
GENDER CHANGERS & ADAPTERS 148, 164
GENERATOR, TELEPHONE RINGER 145
GIPB (IEEE-488)
Cables 162
Cards, PC 125
Converter 161
GLUE GUN & STICKS 94
GRAB BAGS 47
GRAPHICS CARDS 133
GROUNDING/STATIC CONTROL ITEMS 102
HALL EFFECTS SENSORS 41
HANDLES 85
HANDY BOXES 85, 86
HARD DISK DRIVES/ACCESS. 138
HARDWARE
Cable Mounting 82, 83
Computer Brackets 135, 138
Connector Mounting 82
Drive Mounting 134, 135, 138
Fan Guards 80
Feet 85, 86
Handles 85
Heat Sink Mounting 15
Kit 47-49
Knobs 84
LED Mounting 30
PCB Mounting 85, 86
Prototype Enclosures 86, 87
Screws, Nuts, Washers 84, 155
Spacers 84
Standoffs 84, 85
HEADER PLUGS 53
HEADERS 51, 52
HEADSETS 89, 168
HEAT GUNS 83
HEAT SHRINK TUBING 83
HEAT SINKS
486/Pentium® Heat Sink & Fan 80
Clip on 98
Compound 15
CPU 80
Mounting Kits 15
Relay, Solid State 42, 47
Pentium® II Retention Modules 12
TO-3, TO-218, TO-220 15
HEMOSTAT 94
HEWLETT PACKARD® 161
HIGHLY ELECTRIC® SWITCHES/SENSORS 40, 41
HOBO® DATA LOGGERS 127
HOODS, D-SUB 155
HUBS 145, 149
HEX WRENCH SET 95

I

IC DEVELOPMENT TOOLS 93
IC KITS 47-49
IC STORAGE TUBES 85
IC TESTER/PROGRAMMER/ERASER 109
IDEAL® PRODUCTS (Tools) 97
IEEE-1284 CABLES 162
IEEE-1394 CABLES (FIREWIRE) 162
IEEE-488 (GIPB)
Cables 162
Cards, PC 125
Converter 161
INDUCTANCE/CAPACITANCE/RESISTANCE 122
INDUSTRIAL COMPUTING 126
INFRARED
Cameras 166
Diodes 34
Illuminator Kit 166
Kit 177
Remote Control Modules 177
Thermometers 122
USB Transceiver 149
INPUT DEVICES
Accessories 137, 162, 164
Keyboards/Keypads 136, 137, 150
Mice/Pointing Devices 137, 148, 150
INSPECTION SET 98
INTEGRATED CIRCUITS
5000 Series 12
6000 Series/Commodore 7
6800 Series 12
7400-TTL (DIP) 4, 47
74C00-TTL, CMOS (DIP) 4
74HC00-TTL, CMOS (DIP/SMT) 6
74HCT00-TTL, CMOS (DIP) 6
74LS00-TTL (DIP/SMT) 4, 5, 47
74S00-TTL (DIP) 5, 6
8000 Series 13
9000 Series 13
A/D & D/A Converters 10
AMD® CPUs 12
Analog Devices® 13
Assortment 47, 48
Atmel® (AT89C Series) 8
BASIC Stamps/Accessories 169, 170
CD4000-CMOS (DIP/SMT) 6, 7, 47
Clock Chips 13, 14
Clock Modules 14
CMOS Devices 11
CMOS Encoders/Decoders for Remote Control 13
CMOS PIC Microcontrollers 13
Controllers 14
Converters 7-10
CPUs/MPUs 12, 13
Dallas Semiconductors® 13
Decoder/Encoder Chips 13
Digital Interface 14
DIMM Modules 11
Dynamic & Video RAMs 11
E-Lab® Digital Interface 14
EDO Memory 11
Embedded Microcontrollers 129, 170
EPROMs & EEPROMs 10
EPSON® 14
Flash Memory 11
GALS and PALS 11
Generators 7
Harris/Intersil® 7
Holtek® 13
ISD® Voice Chip 14
Linear Series (DIP/SMT/TO) 8-10, 47
Math Coprocessors 12
Maxim® Linear 7
Memory Chips 11
Memory Modules 11
Microchip® 13
Microcontrollers 14
Microprocessors 12, 13
Motorola® Type Series 9
National Semiconductor® Linear 8-10
NEC® V20 12
Optoisolators 28
PALs and GALs 11
PEEL ICT CMOS 11
Pentium®/Processor Chips 12

Pentium® Retention Modules 12
PIC 13, 14
Princeton Technologies® 14
PROMs 10, 11
RAM, Dynamic 11
RAM, Static 11
RAM, Video 11
RCA® Linear Series 8
Servo & Stepper Motor Controller 14
Signetics® Type Linear Series 7
SIMMs 13
Sockets 47-49, 50-52
Static RAM 11
Stepper Motor Controller 14
Surface Mount 4-9
Test Clips 4
Test Leads 110-111
UARTs/USARTs/DUARTs/MUARTs 7
Voice Chips 14
V20 Chips 12
Z80 Series Microprocessors 12
INTEGRATED RETENTION MODULES 12
INVERTERS 60
I/O CARDS 144, 146, 147
I/O MODULES/MOUNTING BOARDS 41
ISOCOM® OPTOISOLATORS 32
ISOSENSE® OVER CURRENT DETECTOR 26

J-K

JACK SCREWS/HEX NUTS 84
JOYSTICK ADAPTER, USB 148
JUMPER LEADS 90, 91, 110
KESTER® SOLDER & ACCESSORIES 106
KEYBOARDS
Macintosh® 137, 150
PC 136-137
KEYCHAINS 100
KEYPADS 137
KITS, ELECTRONICS
Audio Transmitters and Amplifiers 179
BASIC Stamp Programming 169, 170
Clock 176
Electronic Lock 176
Fiber Optics 178
Infrared Transmitters and Receivers 177
Lasers 178
Liquid Level, Distance and Light 174
Motor Controller/Module 173
PC Photo Etch 108
PCB Design Kits 108
PIC 93
Power Supply 173
Relay Controller 173
Robot Kits 170-172
Sound Generation and Detection 180
Speech Recording and Recognition 180
Test and Measurement 175
Timers 176
Velleman 171, 173-179
KITS, COMPONENTS
Capacitors 47, 49
CMOS, CD4000 Series 7, 47-48
Diodes 47, 49
Grab Bags 47
Hardware, Mounting 47, 49
Headers/Connectors 51, 52
IC Kit, 7400 Series 47-48
IC Kit, 74LS00 Series 5, 47-48
IC Sockets 47-48
LED Hardware 30
LEDs 30, 47-48
Linear ICs 10, 47-48
Potentiometers 47, 49
Refills 48-49
Resistors 24, 47-48
SMD Resistors 23
Switches 47, 49
Transistors 47, 49
KNIFE SET 94
KNOBS 84
KVM 159
KYOTO (Relays) 42

L-M

LACING TAPE 82
LAMP, Magnifying/Desktop 94, 100
LAMPS, Incandescent/Fluorescent 34
LASER DIODES & ACCESSORIES 178
LASER POINTERS & LEVELS 178
LCD DISPLAYS 32, 33, 140
LCR Meters 122
LEADS, TEST 90, 110, 111
LEDs
Accessories/Hardware 30, 48
Cable Assemblies 30
Clusters 30
Displays 31
High Power 31
Infrared 34, 166
Kits/Grab Bags 47, 49
Panel Indicators 34
Power Indicators 34
Standard 29, 30
LEDs 29-31, 34
LEDTECH® 30, 31
LENSES (Camera) 175
LIGHT METER, DIGITAL 122
LINE CONDITIONERS 141, 142
LINE CORDS 56, 57
LINE SEPARATOR, AC 121
LIQUID LEVEL SENSORS & CONTROLLER 41, 174
LUBRICANT 107
LOGIC PROBE AND PULSER 114
MACINTOSH® PRODUCTS 150
MAGNETIZER/DEMAGNETIZER 94
MAGNETS (Ceramic) 172
MAGNIFIERS 100
MAGNIFYING GLASSES/LAMPS 100
MARKERS 50, 62, 83
MATH COPROCESSORS 12
MEANWELL POWER SUPPLIES 60-62, 66-70
MEMORY
Batteries 58
Capacitors 23
Converter Cards SIMM to SIMM 11
DIMM 11
EDO 11
SIMM 11
SIMM to SIMM Converter Card 11
METEX® TEST METERS 112, 114, 119
MICE AND ACCESS. 137
MICROCONTROLLERS 13, 14, 120, 170
MICROMETER 94
MICROPHONE
Cartridge/Condenser 89
Headset 89, 168
PC Desktop 168
Wireless 89
MICROPROCESSOR CRYSTALS 27
MICROPROCESSORS 12, 13, 170
MODEMS/FAX MODEMS 145
MODULAR PHONE JACKS & ADAPTERS 158
MODULATORS 168
MOLEX® CONNECTORS 154
MONITOR STAND/BRACKETS 140
MONITORS 33, 140
MONITOR TESTER 140
MOTHERBOARDS 132-133
MOTION DETECTOR 174
MOTOR CONTROLLER 74, 173
MOTORS
Air Pump 77
DC 75, 77
Geared 75, 77
Servo – Radio Controlled 172
Shaft Couplers 172
Stepper 75
Stepper Controllers 74, 173
Vibrating 77
MOUSE PAD 137
MULTIMETER TEST PROBES 110, 111
MULTIMETERS 114, 116-122
MUSCLE WIRE® 171

N-O

NETWORK PRODUCTS 144, 145, 151-153, 157-164
NIC® CAPACITORS 23
NUTS 49, 84
OMRON® 42, 45, 46
OPTICAL CLEANER 107
OPTOELECTRONICS 28
OPTOISOLATORS (OPTOELECTRONICS) 28
ORDER FORM & INFORMATION 185, 187
OSCILLATORS/CRYSTALS 27
OSCILLOSCOPES 112, 113
OSCILLOSCOPES/PROBES 112, 113

P-R

PALs 11
PANASONIC® DISPLAYS 31
PANAVISE® 102, 156
PANEL METERS 33
PARALLAX® COMPUTERS 169, 170
PATCH CORDS 90, 91, 110, 111
PC BOARDS/EXTENDERS 86, 90, 91
PC PHOTO ETCH 108
PCB ARTWORK/DEVELOPMENT ACCESSORIES 108
PCI CARDS 90, 133, 134, 143-147
PEELs 11
PHOTOCELLS 34
PHOTON MICRO LIGHT® 100
PIN INSERTION/EXTRACTION TOOLS 95, 99
PLUGS
Banana 110, 111
DIN, IDC, DIP 52, 98, 156
Power, Line 55
Power, Low Power 60
PHOTO TRANSISTORS 39, 157
PIC MICROCONTROLLERS 13, 93
POMONA® 111
POTENTIOMETERS
Adjustment Tool 99
Bourns® 25, 26
Cermet 25, 26
Clarostat® (53C3)(53C1)(73JA) 25
Kits/Grab Bags 47, 49
Linear Taper 25, 26
Ohmite 26
Trimmer 26
POWER BASES/STRIPS 126, 141-143
POWER CONNECTORS/PINS 55
POWER CONVERTERS 54, 60, 61, 169
POWER CORDS/ADAPTERS 56, 65, 69, 70, 73
POWER ENTRY & LINE FILTERS 55
POWER INVERTERS 60
POWER JACKS/PLUGS 60
POWER PROTECTION/STRIPS 54, 126, 141-143, 168
POWER SUPPLIES
AC Variable Transformers 54
Benchtop 91, 115
Computer 68, 126, 131
DC 61-73, 91
Enclosed 61, 67, 68
Kits 173
Linear 61, 70
Regulated 61-73
Switching 62-68
Wall Mount & Table-Top 69-73
PRESSURE SENSOR 41
PRINCETON TECHNOLOGY 14
PRINTED CIRCUIT BOARD MFG. SUPPLIES 108
PRINTER ACCESSORIES
Auto Switchers/Switch Boxes 158-161
Buffers/Sharers/Networks 144, 159-161
PRINTERS 161
PROBES 110, 111, 112-114
PROGRAMMERS 93, 109
PROMs 10, 11
PROTOTYPE ADAPTER 90
PROTOTYPE BOARDS 86, 90-92
PROXIMITY SWITCH SENSORS 41
PUMP, AIR 77
PUNCH DOWN TOOL 98
QUIKLINK 145
QTRONIX 136, 137, 148
RACKS AND RACK MOUNT EQUIPMENT 126
RACKS, TEST LEADS 110
RADAR KIT 174
RAM 11, 175
RCA 8
RCA, JACKS/CABLES 89, 151, 152
RECTIFIERS 18, 19
RELAYS
Cases/Covers 42
DIP 43

Part Number Color Code
New Sale Refurbished Closeout

General Purpose 42, 44, 45, 77
PCB 44, 46
Power 43, 46
Reed 44
Signal, Low 46
Sockets 43, 45, 77
Solid State 42
RESISTORS
Carbon Film 24
Kits/Grab Bags 47, 49
Lead Forming Tool 94
Network 24
Potentiometers 25, 26
SMD 23
Varistors 15
RFI POWER/LINE FILTERS 55
ROBOTICS 170-172
ROTARY SWITCHES 38, 40
RUBBER FEET 85, 86

S

SCANNERS 161
SCISSORS, ELECTRICIAN's 94
SCR'S (Silicon controlled rectifiers) 19
SCREWS 49, 84
SECURITY 165-167
SECURITY MONITORS 140
SENSORS
Accelerometer 175
Flex 171
Hall Effect 41
Light 34, 177
Liquid 41, 174
Pressure 41
Proximity 41
Ultrasonic 87, 174
SERIAL CARD, IBM® COMPATIBLE 146, 147
SERIAL/PARALLEL CONVERTER 146
SERVOS/CONTROLLERS 74, 172, 173
SHAFT COUPLERS 172
SHARP RELAYS 42
SHORTING BLOCKS 52
SHRINK TUBING 83
SIGNETICS 7
SIMM CONVERTERS 11
SIMMS 11
SOCKET SET 94
SOCKETS & ACCESSORIES
Assortment, Kits/Grab Bags 47-48
DIN 50
DIP 50, 51
Header Plugs 50, 52
Machine Tooled 50
Oscillator 27, 50
PGA 51
PLCC 51
PLCC Prototype Adapter 90
Relay 43, 45, 77
SIMM/SIPP 50
Solder Tail 50
Wire Wrap 50
Wire Wrap ID Labels 50
ZIF 50
SOFTWARE
Data Acquisition 125, 127
Design 91, 93
Diagnostic 134
PIC Programmer 93
Reference 130
SOLAR PANELS 108
SOLDER BRAIDS/SPONGES 106
SOLDER POTS 106
SOLDER/DESOLDERING EQUIP. 102-106
SOLDER/FLUX 106
SOLDERLESS BREADBOARDS 90-92
SOLENOIDS 77
SOUND CARDS 168
SOUND DEVICES/BUZZERS 87-89
SPACERS 84, 85
SPEAKERS 88, 89, 168
STANDOFFS 47, 49, 84, 85
STATIC CONTROLS 102
STATIC RAM 11
STEPPER MOTORS/CONTROLLERS 74, 75, 173
STOPWATCHES 122
STORAGE, JARS/CABINETS 23, 85
STRAIN RELIEF BUSHINGS 82
SURFACE MOUNT
Capacitors 20, 23
Cases Storage 85
Diodes 19
ICs 4-9
PLCC Sockets 51
Resistors 23
Switches 38
Test Leads 110
Tools 99, 104, 105
Transistors 16
SURGE PROTECTORS 60, 141-143, 168
SWITCH BOXES/CABLES, Computer ..150, 153, 159, 164
SWITCHES
AT Computer 35
Binary Code 37
DIP 38
General Purpose 35-38
Hall Effect 41
Keylock 39
Keypad 39
Kit/Grab Bag 47, 49
Liquid Level 41
Magnetic Reed 39
Micro Type 40
Optical 39
Pressure 41
Proximity Sensing 41
Push Button 36
Rocker 35
Rotary 38, 40
Slide 39
Snap Action 40
Tactile 38
Temperature 39
Thumbwheel 35
Toggle 37

T

TAPE 82
TECH SPRAY® CHEMICALS & ACCESSORIES 107
TELEPHONE CONNECTORS & ACCESSORIES 145, 156, 188
TELEPHONE LINE ANALYZERS/TESTERS 115, 116
TELEPHONE RINGER GENERATOR 145
TEMPERATURE SWITCHES 39
TERMINALS
Blocks 53, 62
DIN Rail Blocks 62
Fuseholder 59, 62
Solderless 82, 156
Wire Wrap 92
TEST EQUIPMENT
Benchtop Power Supplies 114, 115
Cable/Interface 115, 116
Current Clamp Meters 121
Fluke® 116
Frequency, Counter/Generator 114
IC Test Clips 4
LAN Testers 115, 116
Leads/Probes 110-114
Light Meter, Digital 122
Line Separators 121
Logic Probe 114
Monitor 140
Multimeter, Analog/Digital 116, 117-122
Oscilloscopes 112, 113
Panel Meters 33
Programmers/Testers 109
Tone/Telephone 115, 116
Transistor/Diode Tester 175
Video 140
Voltage/Metal Detectors 175
TEST LEADS/PROBES/CLIPS 4, 110-114
THERMOELECTRIC COOLERS/CHIPS 139
THERMOMETERS 119, 122
TIE MOUNTS 82
TIMERS 100
TOKEN RING ADAPTER 146
TOOLS
Anti-Static 102
Calipers 94
Cases 100
Center Punch 98
Chuck Key 95
Crimping/Stripping/Cutting 97, 98
Drills 99
File Set 94
Glue Gun 94
Heat Gun 83
Hemostat 94
Hex Wrench/Drives 95
IC 98
Ideal® 96, 97
Inspection 98
Insertion/Extraction 154, 155
Kits/Sets 94, 100, 101
Knife Set 94
Lead Forming 94
Magnetizer/Demagnetizer 94
Micrometer 94
Miscellaneous 94-102
Nibbling 98
Pliers 95, 96
Punch-down 98
Reamer/Deburring 98
Scissors, Electrician's 98
Screw/Nut Drivers 95
Socket Set 94
Soldering 102-106
Vises 95, 102
Wire Wrap 94
Wire/Coax Cutters/Strippers 96, 98
Wrenches 95
TORX KEY SET 94
TPI® TEST EQUIPMENT 112, 117, 121
TRACKBALL 137
TRANSCEIVER, INFRARED/WIRELESS (RF) 144
TRANSFORMERS
Audio 26
Current 26
International Step Up/Down 56
ISDN 26
Isolated 54
Modem Coupling 26
Power/Split Bobbin 54, 55
Table-Top 69, 70
Variable 54
Voice/Data 26
Wall (AC and DC) 71-73
TRANSISTORS 16, 17, 47, 49
TRANSMITTER, CAMERA 166, 167
TRIAC COUPLERS 28
TRIACS 19
TRIMMER CAPACITORS 23
TRIMMER POTENTIOMETERS 25, 26
TRIPPLITE® 122, 141
TWEEZERS 99

U-Z

UARTS 7
ULTRASONIC CLEANER 106
ULTRASONIC SENSORS 87, 174
UPS SYSTEMS 141, 142
USB PRODUCTS 137, 143, 148-150, 161
UVP® EPROM ERASERS 109
V20 12
VARISTORS 15
VELLEMAN® KITS 173-177, 179-180
VGA/VIDEO CARDS 133, 143
VIDEO ADAPTERS 168
VIDEO CAPTURE/CAMERA 143
VIDEO CONVERTERS 168
VIDEO MODULATORS 168
VIDEO MONITORS 140
VIDEO PROCESSORS 166-169, 179
VIDEO RAM 11
VISES 95, 102
VOICE CHIPS/MODULES 14, 180
VOLTAGE SUPPRESSORS, TRANSIENT 18, 19
WALL JACKS/PLATES 158
WALL TRANSFORMERS
AC to AC 71
AC to DC 71-73
Enclosures 85
Power Plugs & Jacks 60
WALL MOUNTS, TV/MONITOR 140
WASHERS 49, 84
WAVETEK® 117, 118, 121
WELLER® SOLDERING IRONS & TIPS 103, 104
WIRE/CABLE, BULK (Also see Cable Assemblies)
Coaxial Cable 153
Computer Cable 81
Flat Ribbon Cable 81
Flexinol® 171
Hookup Wire, Solid/Stranded 81
Markers 83
Modular Telephone Cable 81
Muscle Wire® 171
Power/Speaker Wire 81
Telephone 81
Ties 82, 83
Tools 83
Twisted Pair/Category 5 (UTP) 81
Wire Management 82, 83
Wire Wrap 81, 82, 94
WIRE JUMPERS 90, 91
WIRELESS PRODUCTS 89, 144
Z80 12
ZENER DIODES 19
ZIP DRIVES AND BATTERIES 59, 138

5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day!
1·800·831·4242
International orders, call 1·650·592·8097

24-hour Ordering Hotline!

Toll-Free FAX: US / Canada: 1·800·237·6948
Brazil: 000·817·455·6119
Columbia: 980·912·6784
Indonesia: 1·803·015·237·6948
Mexico: 001·800·593·1449
New Zealand: 080·044·0470
Other Countries: 1·650·592·2503

Online: http://www.jameco.com
On-line catalog! Our complete offering of over 6,000 products searchable on the Jameco website!

Mail: E-mail your order to: sales@Jameco.com or fill out the order form (page 187) and mail it to us.

In-Person: Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will-call office hours are 8:00 a.m. - 5:00 p.m. Monday - Friday

CONTACT INFORMATION

The following services are available at 1·650·592·8097 Monday - Friday from 6:30 a.m. - 5.00 p.m. PST or via e-mail:

- International Sales (international@jameco.com)
- Customer Service (custservice@jameco.com)
- Credit Department (credit@jameco.com)
- Technical Support (tech@jameco.com)

Toll-Free Hotline!

Please call us at 1-800-831-4242.

A Nuestros Clientes en

La Republica Mexicana: Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo;

Proyeccion Electronica de Mexico, S.A. de C.V. a: General E-mail: info@proyel.com.
Quote E-mail: sales1@proyel.com
Phone / Fax: 01-5273-5029
Direccion:
Benjamin Franklin No. 166 Desp. 1
Col. Escandon Deleg. Miguel Hidalgo
C.P. 11800 Mexico, D.F.

Los demas paises de Latinoamerica: Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

PRICES

Prices are effective as of 1-14-02 and expire 4-21-02. Prices and discounts are subject to change without notice. We are not responsible for typographical errors. Photos are representative; product appearance may vary.

ONLINE INFORMATION

Get answers to frequently asked questions on using the Jameco web site at:
http://www.jameco.com

PAYMENT OPTIONS

Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

Open Account

Jameco is pleased to offer the convenience of account payment. Contact us for obtaining open account status.

C.O.D.

Personal checks are approved. Please add $5.00 per C.O.D. order. Include the name and address of your bank and your account number.

International Orders

All foreign orders must be prepaid with credit card (see approved credit cards above), wire transfer, traveler's checks, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment. E-mail: international@jameco.com.

SERVICES

30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Of course, parts returned due to customer error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 to request an RMA# which should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. Books, kits, software, grab bags and special orders are not returnable. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

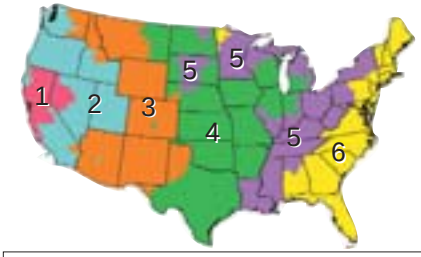
Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from date of purchase unless otherwise stated. Longer and / or broader warranties may be provided by the manufacturer of a particular product. Defective items must be retutned prepaid. This warranty shall not apply to any item where defects have been caused by improper customer assembly, failure by customer to follow instructions, product modification, negligent or improper operation.

Limitation of Liability

Jameco's liability shall be limited to the repair or replacement of defective products in accordance with the Jameco limited warranty. Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)		
1 day	2 days	3 days
4 days	5 days	6 days

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth $5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

Options and Rates*

Shipping delivery times are based on working days.

Ground Service (UPS)
Up to 6 working days for commercial address (up to 9 working days for residential). Guaranteed delivery times may vary depending on zip code.
$6.00 for 1st 2 lbs.; $0.60 for each additional lb.

3-Day Service
$7.50 for 1st 2 lbs.; $1.10 for each additional lb.

2-Day Air Service
$10.75 for 1st 2 lbs.; $1.35 for each additional lb.

Next Day Air Service
- $21.50 for AM delivery for 1st 2 lbs.; $1.85 for each additional lb.
- $16.00 for afternoon delivery for 1st 2 lbs.; $1.85 for each additional lb.

Priority Mail
$4.25 for 1st 2 lbs.; $1.85 for each additional lb.
Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day.
Jameco reserves the right to rebill shipping surcharges for customer misadressed packages

* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a $25 processing fee.

POLICIES

Confirming Orders

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

No Minimum Order

A $5.00 processing fee will be added to orders under $20.00. This fee is waived for orders placed on our website.

Part Number Color Code
New Sale Refurbished Closeout

The Right Power Supplies at The Best Prices!

12VDC Wall Transformer

- 12VDC @ 1000mA output
- Plugs into any standard 2-prong/3-prong 115V outlet.
- 6' power cord

See Page 73 for Details!

Company	Part Number	Price
Mous_ _	412-112103	$8.69
Digi-K_ _	T453-P5P-ND	$21.68
JAMECO	105478	$6.95

SAVE Up To 65%

12VDC Table-Top Regulated Power Supply

- Input voltage: 100-240 VAC @ 50/60Hz
- Output voltage: 12VDC, 1.25 A, 15W

Check out Jameco's wide selection of power supplies on pages 61 through 73

See Page 69 for Details!

Company	Part Number	Price
Mous_ _	552-PSA-300-301A	$35.20
Digi-K_ _	TB53-P5P-ND	$27.48
JAMECO	161576	$22.95

SAVE Up To 35%

300-Watt Single Output Switching Power Supply

MEAN WELL

- 12VDC @ 24A output
- 115VAC/230VAC input
- Over-temperature protected
- Automatic fan controls internal temperature
- Power factor correction

See Page 68 for Details!

Company	Part Number	Price
Mous_ _	618-WRF-24-SXU	$406.50
Digi-K_ _	285-1103-ND	$359.60
JAMECO	137402	$139.95

SAVE Up To $266

We Take Our Low Price Guarantee Seriously!

Jameco has made every effort to provide current and accurate comparisons for your review. Competitive pricing data was collected at the latest possible date (12/17/01) from our competitor's websites. Print screens are available upon request.

60-Watt Single Output Switching DC Power Supply

MEAN WELL

Full input range; no changes required for 110 or 220VAC operation. 24VDC @ 2.5A output specifications.

See Page 66 for Details!

Company	Part Number	Price
Mous_ _	618-WRB-24-SXU	$104.77
Digi-K_ _	62-1037ND	$117.84
JAMECO	123351	$44.95

SAVE Up To $72

240-Watt Single Output Enclosed Switching Power Supply

MEAN WELL

- 24VDC @ 10A output
- Automatic fan controls internal temperature
- 88-132VAC/176-264VAC auto-switching input

See Page 68 for Details!

Company	Part Number	Price
Mous_ _	618-PFE-24-SX	$271.95
Digi-K_ _	285-1063-ND	$250.85
JAMECO	137656	$109.95

SAVE Up To $162

9VDC Wall Transformer

- 9VDC @ 200mA output
- Plugs into any standard 2-prong/3-prong 115V outlet.
- 6' power cord

See Page 72 for Details!

Company	Part Number	Price
Mous_ _	41AC114	$4.49
Digi-K_ _	T402-PSP-ND	$4.65
JAMECO	100845	$4.25

SAVE Up To 8%

Fax 1•800•237•3948 Order 24 hours a day! Seven days a week!

1355 Shoreway Road, Belmont, CA 94002
Call: 1•800•831•4242 International TEL: 1•650•592•8097 FAX: 1•650•592•2503

FOR OFFICE USE ONLY
/

1 Ordered By:

We will ship to this address unless you enter a different address below.

Customer No. **VIP No.**

Company

Name Title

Street Address or PO Box Number

City State Zip Code

Contact information (please check method preferred)

( ) ☐ Daytime phone number - Required for Credit Card Orders

( ) ☐ Fax Number

☐ E-mail Address

☐ Please check this box if you would not like to receive special offers via e-mail from Jameco.

2 Ship To:

Company

Name Title

Street Address or PO Box Number

City State Zip Code

3 Method of Payment:

☐ Prepaid (check enclosed) ☐ C.O.D. ($5.00 service charge)

☐ Net 30 Days (Account must be previously established. Authorized P.O. # required.)

PURCHASE ORDER NO.:

☐ Credit Card

Credit Card users only: VISA MC AMEX DISCOVER

Credit Card Number

Exp. Date: Mo. Yr. Name on card

Billing Address

Street Address or PO Box

City State Zip Code

4

ITEM NO.	QTY.	PART NUMBER	DATA SHEETS	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

TOTAL WEIGHT		SUB-TOTAL	
Add $5.00 processing fee on orders under $20**			
Please Add Applicable Sales Tax (California Only)			
Shipping (See Item 5)			
C.O.D. (add $5.00)			
Canada and Mexico Certificate of Origin ($25)			
Credit Memo (please attach)			(-)
TOTAL			

5 Please Specify Shipping Method:

UPS FedEx Federal Express (USPS)

- ☐ **Priority Mail** ..... $4.25 for 1st 2 lbs., $1.85 for each additional lb.
- ☐ **UPS Ground** ..... $6.00 for 1st 2 lbs., $0.60 for each additional lb.
- ☐ **3 Day Service** ..... $7.50 for 1st 2 lbs., $1.10 for each additional lb.
- ☐ **2 Day Air Service** ..... $10.75 for 1st 2 lbs., $1.35 for each additional lb.
- ☐ **Next Day Air Service** (AM delivery) ..... $21.50 for 1st 2 lbs., $1.85 for each additional lb.
- ☐ **Next Day Air Service** (PM delivery) ..... $16.00 for 1st 2 lbs., $1.85 for each additional lb.
- ☐ **Foreign Shipment** via Air Parcel Post ..... Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available

**$5.00 fee waived for orders placed on our website.
Some restrictions may apply. See order information on opposite page for other shipping methods and conditions of sale.
Shipping rate is based on a single package shipment.

6 JAMECO thanks you for Your Order!

Get the Inside Scoop on What's New!

Triple-Output 90-Watt Digital DC Power Supply

30VDC @ 3A Variable

This power supply has triple output with fixed 5VDC @ 0.5A & 12VDC @ 0.5A. Input voltage 110/220VAC @ 50/60Hz switchable.

See Page 115 for Details!

Company	Part Number	Price
Mous_ _	*615-1627*	$239.00
Digi-K_ _	*BK1735-ND*	$388.97
JAMECO	*197991*	$198.95

SAVE Up To $190

Temperature/Humidity Meter with Minimum/Maximum Memory

- Displays (%) relative humidity and temperature (˚C/˚F) simultaneously
- Min./Max. memory on both relative humidity & temperature with reset function
- Temperature range: -10˚C to 60˚C (14˚F to 140˚F)
- Humidity range: 10% to 99%
- 1" high readout

See Page 122 for Details!

Part No.	Description	1	10	25
198045	Temperature/humidity meter	$38.95	$34.95	$32.95

3½-Digit Multimeter with Adjustable Viewing Angle

Adjustable 1" LCD display for better viewing angle. Improper test lead position sounds alert if position does not match function. Tests DC/AC voltage, DC/AC current, resistance, capacitance, temperature, diode, transistor h_{FE}, and continuity.

See Page 117 for Details!

Company	Part Number	Price
Mous_ _	*569-23XT*	$89.95
Digi-K_ _	*BK2706A*	$78.97
JAMECO	*197966*	$68.95

SAVE Up To $21

We Take Our Low Price Guarantee Seriously!

Jameco has made every effort to provide current and accurate comparisons for your review. Competitive pricing data was collected at the latest possible date (12/17/01) from our competitor's websites. Print screens are available upon request.

USB 2.0 PCI Card – 5-Port

40 Times Faster Than the Original USB!

USB 2.0 offers enhanced functionality, allowing more devices to share the increased bandwidth.

- Supports high speed data transfer rate of up to 480 Mbps
- Fully backwards compatible with USB 1.1
- Supports Windows® 98/98SE/2000/ME/XP
- 1 internal USB-A port
- 4 external USB-A ports

See Page 149 for Details!

Part No.	Description	1	10
197940	5-port USB 2.0 PCI card	$59.95	$53.95

Z-200SM Single-Line Telephone Filter

In-line Z-BLOCKER® filter blocks interference between DSL/HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.

Company	Part Number	Price
Radio Sh _ _ _	*43-150*	$19.99
Excels_ _	*2200SM*	$8.95
JAMECO	*196429*	$7.95

SAVE Up To $12

8-Channel Analog-to-Digital Converter Module

This module has six differential and two-single ended or eight differential channels (jumper selectable) with 16-bit resolution.

- Input ranges: ±150mV, ±500mV, ±1V, ±5V, ±10V and ±20mA
- Sample rate: 10 samples/sec
- Common mode rejection @ 50/60Hz: 92dB min.
- Overvoltage protection: ±35V

See Page 123 for Details!

Part No.	Description	1	10
198125	8-channel voltage & current	$184.95	$166.49

Guaranteed Lowest Price & In-Stock

16-Button Indoor/Outdoor Keypads

Perfect for indoor and outdoor use! Fully sealed snap-dome contact, 2x8 matrix with a life test of 3,000,000 cycles per key. Compatible with MOS, TTL and DTL

See Page 39 for Details!

Company	Part Number	Price
Mous_ _	538-86BB2-002	$19.05
Digi-K_ _	CKN6011-ND	$20.44
JAMECO	196171	$14.95

SAVE Up To 25%

DB9 Extension Cable

All lines connected straight through!

- 6 feet of high-quality cable
- DB9 male to DB9 male with thumbscrews

See Page 163 for Details!

Company	Part Number	Price
Radio Sh_ _ _	950-0226	$7.99
CD _	086872	$7.49
JAMECO	25700	$5.95

SAVE Up To 25%

Monolithic Ceramic Capacitor (±20%) (Z5U Series)

Perfect component for applications such as data processing and communications engineering

- Capacitance: .1uf
- Voltage: 50V

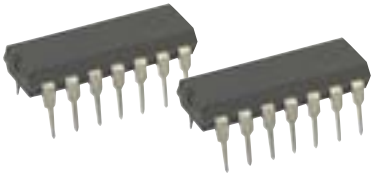
See Page 22 for Details!

Company	Part Number	Price
Digi-K_ _	P4924-ND	$.43
JAMECO	25523	$.25

SAVE Up To 40%

+5VDC RS232 Driver/Receiver

- MAX232CPE
- 16-pin dual RS232 receiver/transmitter



See Page 8 for Details!

Company	Part Number	Price
Mous_ _	570-ICL232CPE	$2.45
Digi-K_ _	MAX232CPE-ND	$3.31
JAMECO	24811	$1.95

SAVE Up To 40%

12VDC Wall Transformer

Input: 120VAC @ 60Hz with an output current rating of 800mA. Plugs into any standard 2-prong/3-prong 115V outlet.

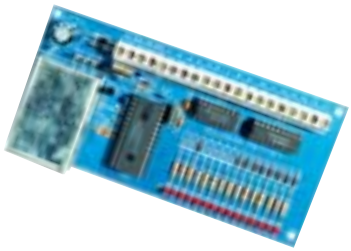
See Page 72 for Details!

Company	Part Number	Price
Mous_ _	412-112-084	$8.95
Digi-K_ _	T507-P5P-ND	$6.95
JAMECO	117479	$5.95

SAVE Up To 30%

15-Channel Infrared Receiver

Ideal for remote on-off switches, alarms and garage door openers. Comes with 15 independent channels with a transmit/receive range of 30 meters!



- Each output can be a change-over or pulse-contact switched
- Output: 50V @ 500mA max.
- PCB dimensions: 2.8"L x 5.7"W

See Page 177 for Details!

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
120547	K6711 15-ch receiver	76	0.5	$44.95	$39.95

We Take Our Low Price Guarantee Seriously!

Jameco has made every effort to provide current and accurate comparisons for your review. Competitive pricing data was collected at the latest possible date (12/17/01) from our competitor's websites. Print screens are available upon request.

New and Out-of-Production Electronic Products with 24/7 Service, Expert Support, and Our Low-Price Guarantee

Integrated Circuits

- Expanded line for one-stop shopping
- Digital, linear, EPROM, signal conversion, memory, MPU's and more
- New surface mount devices
- Embedded and PC processors, linear, signal converters and much more!

Be sure to see pages 4-14 now!

Power Supplies – *Best prices and wide selection*

- We have the best prices on over 400 power supplies
- We carry all types of power supplies: regulated & unregulated, AC/AC, AC/DC, DC/DC, wall & table top, open & enclosed frame, switching & linear, DIN rail, bench top, computer and kit power supplies!

Passive Components

- Signal and power connectors, pins, sockets, discrete and more
- 99.7% in-stock for same business-day shipping
- Save money with lowered prices!

See the Quick Index on page 1

Tools & Test Equipment

- Economically build up your lab
- Full line of scopes, DMM's, cable testers, test leads, crimpers and more
- Brand names you trust: Fluke, Metex, BK Precision and more!

Late Additions!
Data Acquisition on pages 123-127

PC Components

- Hard drive and motherboard prices reduced up to 60%!
- Hard-to-find specialty products, too!

Save up to 60% on motherboards!
See pages 132-133

Your Choice is Jameco

JAMECO® ELECTRONICS
1355 Shoreway Road
Belmont, CA 94002-4100
1•650•592•8097

Order Desk available 24/7, 365

Call 650•592•8097 from 6:30 a.m.–5:00 p.m. PST for:
✓International Sales
✓Customer Service
✓Credit Department
✓Technical Support

Toll Free Ordering
Customer Service and Technical Support:
1·800·831·4242

Domestic FAX: 1·800·237·6948 / International FAX: 1·650·592·2503
Internet: http://www.Jameco.com e-mail: info@Jameco.com

ROUTE TO ☞
❑ Engineering ❑ Repair
❑ Purchasing ❑ Production
❑ R&D ❑ Plant Maintenance
❑ Instructor ❑ Materials
Name_____

Customer Number VIP Number

PRESORTED STANDARD
AUTOCR
US POSTAGE PAID
JAMECO ELECTRONICS

Receiving duplicates? Incorrect address? No longer wish to receive the Jameco Catalog? Please fax, mail or e-mail your preferences to us.